1946

Florida

47th Annual Report

STATE BOARD OF HEALTH

State of Florida

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FLORIDA STATE HEALTH OFFICER

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FLORIDA STATE BOARD OF HEALTH
JACKSONVILLE 1, FLORIDA

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47th Annual Report

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WILSON T. SOWDER
FLORIDA STATE HEALTH OFFICER

1946

FLORIDA STATE BOARD OF HEALTH
JACKSONVILLE 1, FLORIDA

The Honorable HERBERT L. BRYANS, M. D., *President*
Florida State Board of Health
Pensacola, Florida

DEAR DR. BRYANS:

I herewith submit the forty-seventh annual report of the Florida State Board of Health for the year ending December 31, 1946.

Sincerely yours,

WILSON T. SOWDER, M. D.
State Health Officer

Jacksonville, Florida
September 2, 1947

His Excellency, MILLARD F. CALDWELL
Governor of Florida
Tallahassee, Florida

SIR:

I beg to hand you herewith a report of the Florida State Board of Health for the period January 1, 1946, to December 31, 1946, inclusive.

Respectfully submitted,

HERBERT L. BRYANS, M. D.
President

September 2, 1947
Pensacola, Florida

Members of the

FLORIDA STATE BOARD OF HEALTH

HERBERT L. BRYANS, M.D., *President*
Pensacola

WILLIAM PARR, Ph.G.
Tampa

ROBERT B. McIVER, M.D.
Jacksonville

FOREWORD

The State Board of Health is proud of many of its achievements, during the year 1946, but it is proudest of the type of personnel whom we have attracted to our cause. No organization attracts good people, however, unless it deserves it. The ultimate reason that we are getting and keeping personnel is that the people of the State of Florida have shown over a period of many years that they earnestly desire a good public health program. This feeling has been impressed upon our legislators and other public officials, including our Governor. These officials, however, have shared this feeling and have in very many instances, especially in the case of our Governor, been leaders in pointing out the need for better public health in the state. It is very doubtful if any health department in any state has received quite so much support as we have been fortunate enough to have from our Chief Executive.

Florida has also been fortunate enough to receive hearty support for its public health program from its local officials both county and municipal. Not only has there been a steady increase in the number of county health departments established but there has been an extremely praiseworthy tendency towards streamlining and consolidating local organizations in this field. With few exceptions we no longer have in Florida multiple overlapping and competing health departments representing municipalities, counties, school boards and voluntary agencies doing the same work in the same area. Nearly everywhere in Florida officials of school boards, municipalities and counties have joined their efforts and are carrying on a public health program through a single agency, a county health department.

Some outstanding accomplishments are briefly summarized as follows: The number of counties with accredited health departments increased during 1946 from 36 to 52. The Training Center for public health workers operated in cooperation with the Alachua County Health Department at Gainesville has done excellent work under the direction of the county health officer, Dr. Frank Hall. During the year a total of 28 sanitary officers, eight public health nurses and one clerk have been given formal training. In addition to this a substantial number of additional personnel have profited from briefer periods of observation and orientation there. This center is jointly financed by the State Board of Health and the Commonwealth Fund.

A new undertaking will begin in January with the assistance of the Commonwealth Fund, a Field Technical Staff. This staff will consist of a physician, two sanitarians, two nurses and two clerks who will visit various county health departments at their invitation and lend advice and assistance in carrying on a well-rounded public health program.

In cooperation with the Rockefeller Foundation a survey of the occurrence of typhus fever in the state was carried on by Dr. E. R. Rickard of the Rockefeller Foundation. A large number of cases of this disease were discovered which had previously been unreported. The survey also enables us to better plan and carry out the typhus fever control program which we have had for several years. Our efforts in the control of typhus fever have been directed by Mr. George Bote, of the U. S. Public Health Service who has been assigned to the Bureau of Sanitary Engineering, and have been confined largely to rodent control. Rat proofing has been considered to be the key to the whole problem although experimental work has been carried on to determine the effects of dusting rat infested premises with DDT in order to kill the typhus bearing flea.

During the summer the state was visited by an unusual outbreak of poliomyelitis. No state health department and no county health department can go through a more trying experience than such na outbreak brings. This is due largely to our lack of knowledge of any effective means of controlling the spread of the disease. During the year 1946, 551 cases were reported with 41 deaths. Although many other diseases outranked poliomyelitis during the year in the death toll exacted this disease always creates an unusual amount of hysteria and apprehension because it is mysterious in many ways and because it affects children. Since this outbreak Dr. Edwin G. Riley, our epidemiologist, with assistance from the National Foundation for Infantile Paralysis has initiated a survey of the cases that occurred in order to determine the final outcome as to deaths, crippling affects, recoverences, etc.

A continued campaign has been carried on against veneral diseases which is one of Florida's foremost health problems.

A new Division of Industrial Hygiene was established and this program will consist mainly in investigating the industrial health hazards actual and potential in the various industries of the state. The personnel of that division will work closely with the State Industrial Commission and will keep that agency advised of its findings.

A cancer control program was started in a very small way with funds available from the Federal Government.

In the field of tuberculosis control several mobile units have been in operation, some of them for the first and over 100,000 persons were x-rayed. All persons whose x-ray showed tuberculosis or any symptoms of tuberculosis were followed up. Every effort was made to get infected persons into the State Sanatoria. A case register covering 6,500 infected persons, with accurate information as to their whereabouts and the stage of their disease, was established in the central office of the Bureau of Tuberculosis Control.

Continued investigations in the field of malnutrition and anemia were made by Dr. Walter Wilkins and his staff of the Nutritional Investigations and Services Unit.

During the year the Bureau of Sanitary Engineering reviewed and approved plans for the constructions of water and sewage plant facilities the cost of which amounted to about $20,000,000.

The program aimed at the control of the malaria bearing mosquito was continued and great emphasis was placed on residual DDT spraying in homes.

The Bureau of Laboratories has continued to expand its activities. Its staff has been strengthened and studies have been carried on concerning not only the prevalence of hookworm in the state but of the various degrees of infestation. An optimistic view is made possible in this field for the first time by the discovery that in spite of the high prevalence of hookworm infestation amongst our children the majority have only a very light degree of infestation and little harm is done in these cases by the parasite. In spite of this, the number of cases of heavy infestation is substantial and our efforts to eradicate hookworm will continue. These efforts will consist largely in improving sanitary facilities.

In the field of vital statistics the Board decided to streamline its organization for the collection of data on births and deaths. This activity in the various counties will be centralized in the county health department with as many sub-registrars as are necessary in various parts of the county. This reorganization is under way but will proceed slowly in order not to interrupt the efficiency of the present set up.

A purchasing unit was established in which all purchases are centralized and it is believed that under this setup greater efficiency and economy will be attained. Thousands of dollars have all ready been saved through systematic purchasing procedures.

Although it is gratifying to report these signs of progress, it should be emphasized that much remains to be done. Ceaseless vigilance and effort is necessary if the health of the people of this state is to be brought up to an acceptable level, and further effort necessary to keep it there.

WILSON T. SOWDER, M. D.—State Health Officer.

Edited by
EDWIN G. RILEY, M.D.

TABLE OF CONTENTS

Preventable Diseases 1
  Epidemiology 1
  Epidemiology of Human Typhus 9
  Venereal Disease Control 11
  Industrial Hygiene 22
Tuberculosis Control 25
Malaria Control 41
Malaria Research 51
Nutrition Investigation 55
Sanitary Engineering 59
Maternal and Child Health 77
Local Health Services 81
  Public Health Nursing 94
  Dental Health 97
Health Information 101
  The Library 106
Laboratories 109
Narcotics 115
Vital Statistics 117
Finance and Accounts 119
  Personnel 126
  Purchasing and Property 126

BUREAU OF PREVENTABLE DISEASES

R. F. SONDAG, M.D., Director

Following the creation of a Bureau of Preventable Diseases late in 1945, the new bureau, with the employees of the Bureau of Venereal Disease Control, continued on, and no additions were made to the personnel staff until March, 1946, when an epidemiologist was added. Later in the year, a Division of Industrial Hygiene was created and personnel added to this division to carry on the functions of an industrial hygiene program. The various activities of cancer control were carried on by the Director of the Bureau of Preventable Diseases.

The present annual report incorporates the epidemiological activities for 1946 prepared by the Epidemiologist, Dr. E. G. Riley; the Industrial Hygiene Division activities, prepared by Mr. H. N. Doyle, Chief Engineer, on loan to the State Board of Health by the U. S. Public Health Service; and the activities of the Venereal Disease Control Division by the Director of the Bureau of Preventable Diseases.

A Division of Cancer Control has not as yet been created; with a small amount of federal funds some forward steps have been taken to develop a cancer control program. In the absence of a specific law designating the State Board of Health as the agency to do cancer control, the responsibilities for the control of cancer logically fall upon this organization. During the year, the only definite phase of the cancer control program developed was the tissue diagnostic mailing service. The Bureau of Preventable Diseases cooperated closely with the Florida Division of the American Cancer Society and the Florida Medical Association in the development of a proposed cancer control program. As more state and federal funds become available, it is anticipated that this program will expand considerably during the coming year.

The report of epidemiological, venereal disease control, and industrial hygiene activities follows:

EPIDEMIOLOGY

E. G. RILEY, M. D.

The picture of communicable diseases in Florida for 1946 was marked by the largest outbreak of acute anterior poliomyelitis the State has known. A total of 551 cases were reported. The previous high was 263 cases in 1941. The increased incidence began in 1945 when a total of 143 cases were reported. An abnormal number of cases continued to occur during the cooler months of 1945-46 and March and April showed a rapid increase in cases with the largest number occurring in June (Fig. 1). At the end of the year new cases were still being reported.

The largest number of cases occurred in Dade County followed by Palm Beach and Hillsborough (Table 1). Monroe County had a rate of 2.1/1000 which was the only place where an epidemic state existed — if the accepted definition of an epidemic of poliomyelitis of one case/1000 population is applied.

As is usually the case with the disease, counties with large numbers of cases were frequently next to counties from which no cases were reported.

Figure 2 shows the age distribution of 1946 cases. The age group 0-4 contained the largest number of cases. This is at variance with the situation in other parts of the country in which the age group 5-9 is more frequently attacked. The youngest case was that of a 13 day old child while the oldest was 48 years.

There were 501 cases among white persons and 50 among colored, 288 females, 263 males.

The rates for various sized towns were as follows:

Above 100,000	30.5/100,000
10,000 — 100,000	30.9
2,500 — 10,000	32.5
Below 2,500	16.0

At the present time, with the assistance of a grant from the National Foundation for Infantile Paralysis, a study is being made to determine more fully the nature of the outbreak. Among other things the number of cases with paralysis and the extent and degree of paralysis will be determined.

An epidemiological study of the disease was made in Key West from which no conclusions could be drawn as to how the disease there was spread.

During the height of the outbreak telegraphic reporting was instituted and a daily report was issued on the numbers of new cases reported.

In cooperation with hospitals and the state offices and local Chapters of the National Foundation for Infantile Paralysis an arrangement was arrived at whereby all acute cases could be hospitalized in an institution which served a number of counties. This eliminated the difficulty which was occasionally encountered of having some acute cases refused hospitalization because they were not a local resident.

Too much cannot be said for the assistance given the medical and public health authorities by the National Foundation during this difficult period.

Further details of the 1946 outbreak will be published in forthcoming reports.

Other diseases showed minor variations from previous years in the number of cases reported.

The number of cancer cases reported doubled over the number included in last year's report. This was due to the institution of a system whereby death records from cancer were included in the morbidy report.

The number of cases of diptheria this year doubled that for last year and was the largest number of cases since 1938. The general trend in reduction of the number of cases of diptheria that started in 1928 is still continuing in spite of the increased incidence for this past year.

The number of cases of malaria reported this year is still large although less than last year. An attempt was made to determine whether the infections reported were acquired in the United States or outside of the United States but the results were unsatisfactory. It was observed, however, that the major number of cases reported were in young men of military age.

There was also a large increase in the number of cases of measles.

Rabies in animals showed a marked increase in the number of cases recorded and although officially only 55 rabid animals were reported, conversations with veterinarians and others interested in

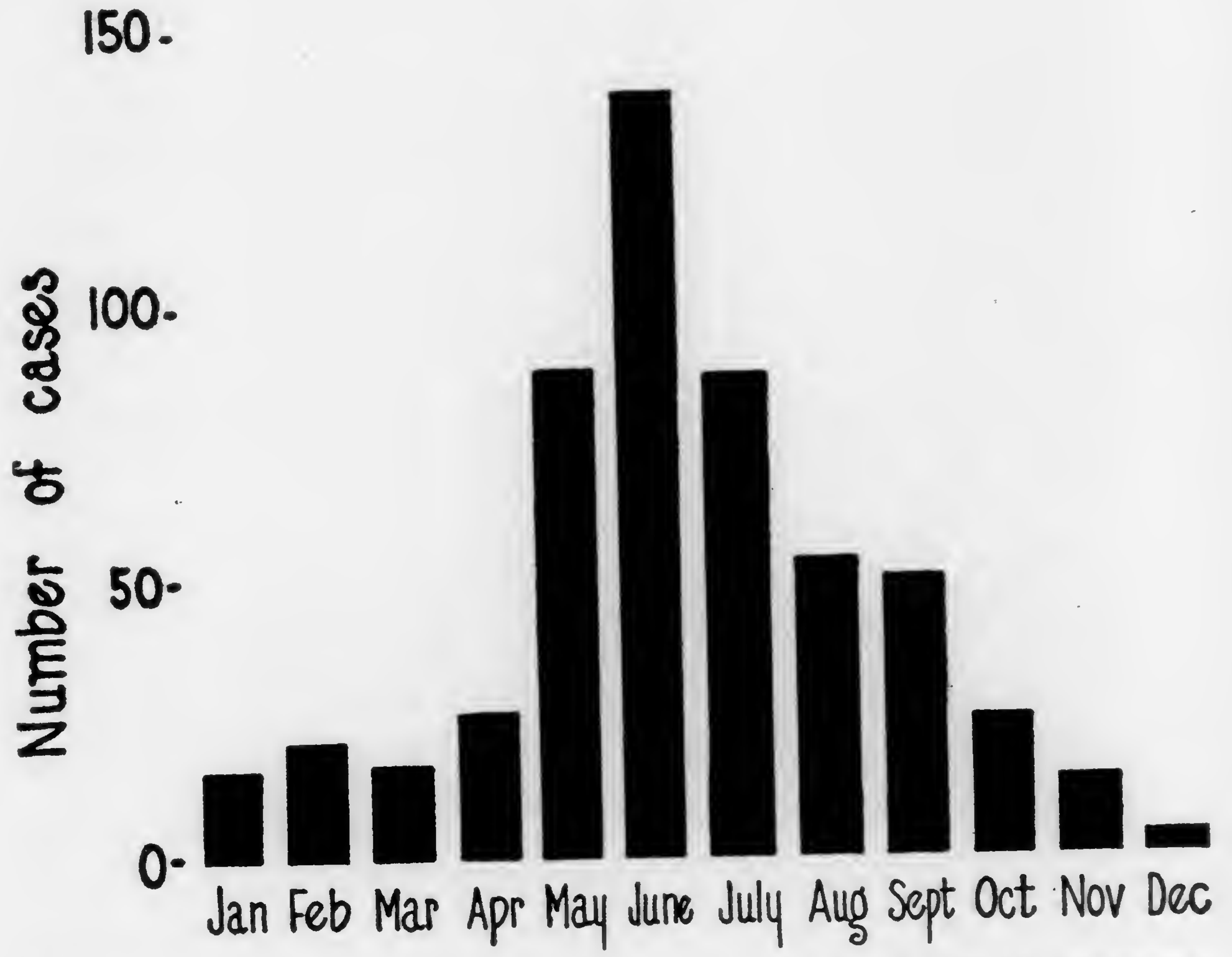

Figure No. 1—Distribution of cases of poliomyelitis by month of occurrence. Florida, 1946

TABLE I—PROVISIONAL TABLES OF MORBIDITY FOR 1946

	STATE POPULATION 2,336,700	CANCER	CHANCROID	CHICKENPOX	CONJUNCTIVITIS	DIARRHEA	DIPHTHERIA	DYSENTERY-AMEB.	DYSENTERY-BAC.	DYSENTERY-OTH.	ENCEPHALITIS-EP.	ENCEPH.-OTHER	ERYSIPELAS	GERMAN MEASLES	GONORRHEA	GRANULOMA ING.	HOOKWORM	INFLUENZA	LYMPH. VEN.	MALARIA-IN U. S.	MALARIA-OTHER	MEASLES	MENINGITIS-EP.	MENINGITIS-OTH.
TOTAL LAST YEAR		488	722	1,980	21		245	93	28	0	4	0	43	176	18,088	244	4,576	130	197	29	641	703	167	0
TOTAL THIS YEAR		992	818	930	84	49	428	79	27	18	14	4	56	150	18,548	257	3,680	215	176	467	40	3,262	76	27
ALACHUA	38,245	8	13	4	6	1	2								266	7	8	3	3	22		14		
BAKER	6,326	2		1			1								33	1	58	1		2				
BAY	48,700	3	21	1			1		1			1			169	2	231		5	3		3		
BRADFORD	11,200	2		1				4	2						99		166							1
BREVARD	20,100	7	1				2	1						1	28	4	8	3	1	6		3		
BROWARD	53,000	19	22	12			11							2	341	10			6	9		139	3	
CALHOUN	8,230	1			1										6		9							
CHARLOTTE	4,360	4	1	1											5									
CITRUS	5,427		1				2								47				1	1				
CLAY	10,900	3	11	7										2	104	1	12		2			16		
COLLIER	4,957		3											1	38				1	1		2		
COLUMBIA	17,200	5	5	2	3		1	1	1						161	2	263	11		15		14	1	
DADE	326,800	436	181	192		30	32	1	1	1	3	1	10	51	2,808	47	12	71	23	25	5	484	9	2
DESOTO	6,854	1	4												61	4	40		1	5				
DIXIE	4,926		1												50		1						1	
DUVAL	289,500	25	102	118	3	6	62	23	2	1	2		14	2	2,937	23	206	7	19	83	1	450	1	4
ESCAMBIA	112,800	8	32	6		1	16				1		1	3	1,993	5	38		6	7		36	4	1
FLAGLER	2,652		6	1			1								85	1		28	1			1		
FRANKLIN	8,500		1				1		1	9					73		24	1		6		1		
GADSDEN	31,041	11	13	8			8	8		1		1			375	5	43	12		98		58	2	
GILCHRIST	3,466	3	1												13		16			1		6		
GLADES	2,281														6		36	2				13		
GULF	7,030		4						1						14		57							
HAMILTON	8,731		4	3	1				1	2					17	1	204	3		6				
HARDEE	8,585						2													1				
HENDRY	5,066		6												20	1							1	
HERNANDO	5,700		1				1								5									
HIGHLANDS	17,900	8	13	2	3		7								105	7	7	9	3	6		33		
HILLSBORO	214,600	189	40	93	20		96		2		3		19	48	2,330	30	176	9	25	26	26	722	21	2

TABLE I—PROVISIONAL TABLES OF MORBIDITY FOR 1946—(Continued)

	STATE POPULATION 2,336,700	CANCER	CHANCROID	CHICKENPOX	CONJUNCTIVITIS	DIARRHEA	PIPHTHERIA	DYSENTERY-AMEB.	DYSENTERY-BAC.	DYSENTERY-OTH.	ENCEPHALITIS-EP.	ENCEPH.-OTHER	ERYSIPELAS	GERMAN MEASLES	GONORRHEA	GRANULOMA ING.	HOOKWORM	INFLUENZA	LXMPH. VEN.	MALARIA-IN U. S.	MALARIA-OTHER	MEASLES	MENINGITIS-EP.	MENINGITIS-OTH.
HOLMES	14,627	3		2			5								15		1	1		4		32	1	
INDIAN RIVER	9,100	2	2	4	5		2		1					1	31	1	25	1	1	2		16		2
JACKSON	34,530	1	5				1		2						197	2	22			2				
JEFFERSON	11,066		1												70	1	3		1					
LAFAYETTE	3,995	1													3		3					1		
LAKE	28,100	7	23	19	1		10	4	2						264	6	271		6	4	1	193		1
LEE	25,100	5	8				5								178	6			4	1		1		
LEON	36,400	3	9	1			10	1	4					2	761	1	22		10	24		21		
LEVY	9,902	3	4				1	1							32	1	25			3		5		
LIBERTY	3,193						1								1		1			4				
MADISON	15,537		4	1			1								64		97		2	4		2		
MANATEE	27,000	5	16		8		5								322	9	58		2	5		7	1	
MARION	36,100	2	12	9			4	1	1						662	7	67	1	5	7		28	2	
MARTIN	6,094	1													5		9			1				
MONROE	20,200	5	5	15			10							1	209	2				2		7		
NASSAU	10,900	4		4	1		3		1				2		50		63	3	1			16	1	
OKALOOSA	17,000		3						1						19	1						1	1	
OKEECHOBEE	2,919		1												2		36						1	
ORANGE	90,895	24	59	136		1	9	20	1					24	528	9	274	5	7	6	1	215		4
OSCEOLA	10,700	5		1	2			1							6		3		3	1		1	1	
PALM BEACH	120,300	13	103	72	2		5			1	2			7	780	24		5	7	9		190	5	6
PASCO	13,729	6	2				5								13		10			2			1	
PINELLAS	139,700	40	12	61	3		1	2			1			2	504	9	3	3	2	5	6	42	6	2
POLK	118,700	69	8	3	21	7	45	2	2	3	1	1	4	2	474	1	40	17	2	15		22	7	1
PUTNAM	17,837	1	5				3						1		25	3	69		1	6		25	1	1
ST. JOHNS	22,000	5	3												46	4						3	1	
ST. LUCIE	13,200	2	15			1	1								179	3	2		7	3				
SANTA ROSA	17,200	2		1											31		30			3		168		
SARASOTA	20,000	6	2	99	1								1	1	77		3	1	2	5		92	1	
SEMINOLE	25,100	7	3	9			18								192	6	25	9	2	3		10		
SUMTER	10,417	1		3	1		21	5			1		2		66	1	277	1		1		9	1	
SUWANNEE	17,700	5	5		1		1	3							48		12		1	1		2	1	
TAYLOR	10,738	2	3			1	5								6	1	366		1	4				
UNION	6,051	2		1			2								18		1	1		3				
VOLUSIA	60,700	19	14	36		1	8								435	7	110	3	12	10		94	1	
WAKULLA	5,059	2	1												25		74	3				63		
WALTON	13,871	1	2					1					1		9		63			2				
WASHINGTON	11,889	3	1	1	1								1		12	1		1		2		1		

TABLE I—PROVISIONAL TOTALS OF MORBIDITY FOR 1946

	MUMPS	OPTHAL. NEO.	PARATYPHOID	PARASITIC, OTH.	PNEUMONIA, ALL FORMS	POLIOMYELITIS	RABIES, ANIMAL	RABIES, HUMAN	SAMONELLA	SCARLET FEVER	STREP. INF.	SMALLPOX	SYPHILIS	TETANUS	TUBERCULOSIS, PULMONARY	TUBERCULOSIS, OTH.	TYPHOID	TYPHUS	RKY. MT. SP. FEVER	UNDULANT FEVER	VINCENT'S ANG.	WHOOPING COUGH	JAUNDICE	LEPROSY	PUERPERAL INF.	PELLAGRA	TULAREMIA
TOTAL LAST YEAR	1,350	23	23		1,103	143	9	0	9	336	46	0	16,546	31	1,073	13	124	442	0	27	115	477	8	0	1		8
TOTAL THIS YEAR	1,574	20	24	467	753	551	55	1	84	257	142	0	16,067	40	2,100	10	66	393	0	81	123	1,050	27	8	4	10	7
ALACHUA	5		2	1	7	5			8		2		439		55			1		1	1	1			1		1
BAKER				21									30		9			1				3					
BAY				8	3	10			3				187		30							1					
BRADFORD				35		1			1		1		78		10							3					
BREVARD	6		1	1	5	9			4				168	2	19						2		2	1			
BROWARD	10				7	4							383		28			3				25	1				
CALHOUN					1	1							7		2					1						
CHARLOTTE										1			15		0		2										
CITRUS						2							24		3													
CLAY	3													91		2		2										
COLLIER	5				1	1							30		5													
COLUMBIA	3			11	7	3	2			10	1		137		5		1	8		1	1	1				2	
DADE	317	9	6		301	125	10		14	42	29		1,627	9	334	4	6	52		13	20	287		1		2	
DESOTO						1			1				44		3		1	1									1
DIXIE					1	1							23		1			7									
DUVAL	63	1	2	136	57	31	8		7	42	18		2,689	6	257	2	13	37		3	28	158	8				1
ESCAMBIA	10	4	2		5	16		1	2	6	2		684	2	95		1	65		1	2		1				
FLAGLER	7				9						5		98		1			1									
FRANKLIN					10								37		7						1						
GADSDEN	12	1			17	3	1				2		588		42		4	12		2		48			2	1	1
GILCHRIST	1				3	2				1			21		11			2				2					
GLADES	1				1	1							26		0			2									
GULF		1		1	1								78		6													
HAMILTON				29	1								25		4						1						
HARDEE					1	7							20		1							1					
HENDRY													183		0		1			1						
HERNANDO						2							34		1									1			
HIGHLANDS	12				14	3				1	2		178	1	4			1			1	20					
HILLSBORO	49	1	1	5	127	58	17			57	58		947	7	464	1	8	57		6	29	90	9	2	1	2	
HOLMES					3	3							38		10		4										

TABLE I—PROVISIONAL TOTALS OF MORBIDITY FOR 1946—(Continued)

	MUMPS	OPTHAL, NEO.	PARATYPHOID	PARASITIC, OTH.	PNEUMONIA, ALL FORMS	POLIOMYLITIS	RABIES, ANIMAL	RABIES, HUMAN	SAMONELLA	SCARLET FEVER	STREP. INF.	SMALLPOX	SYPHILIS	TETANUS	TUBERCULOSIS PULMONARY	TUBERCULOSIS, OTH.	TYPHOID	TYPHUS	RKY.MT.SP.FEVER	UNDULANT FEVER	VINCENT'S ANG.	WHOOPING COUGH	JAUNDICE	LEPROSY	PUERPERAL INF.	PELLAGRA	TULAREMIA
INDIAN RIVER		1		5	3	3							114		13			4			4	2					
JACKSON					2	16			5				99		9					1						1
JEFFERSON						1				1			87		3			1				4					
LAFAYETTE						1							4		0			2									
LAKE	7			44	1	6			2	1			355		14		3	9			1	9					
LEE	1		1		3	1							126	1	8		1			10		3					
LEON	24	1			1	2			5	12	1		368		45		3	7		4			1				1
LEVY	3		1	1	2					1			93	1	11							7					
LIBERTY					1	1									0								1				
MADISON					3	4							105		24			3		2						
MANATEE	6			9	3	3							157		15		1	1			8	7					
MARION	3		3		4	4			6	2	2		293		19		2	1		1	1	4	2				
MARTIN													40	1	4							3					
MONROE	1				5	43			2				78	1	26			1				6		3			
NASSAU	2			25	1				2	2			72		15			13		2		2					
OKALOOSA						4				1			28		7			2									
OKEECHOBEE					1								14		0							1					
ORANGE	363		2	37	15	9			4	20	2		721		71		3	5		5	1	118					
OSCEOLA	3			1	3	1	1			1	1		36		3			3		4	2	3					
PALM BEACH	569	1	2		16	72	1			9	1		1,398	4	59	1		1			5	30					
PASCO						1	1		2	1	1		83		6			1			1					1	
PINELLAS	8		1	2	16	25			3	12			386	1	115		2	18		3	1	60		1			1
POLK	3			2	67	29	3		8	14	6		553	2	80		3	45		8	8	63					
PUTNAM					1	2				5	6		232		5			1		1	1	2	1				
ST. JOHNS					2	1							132		4		1	1									
ST. LUCIE					2								213		4							4				1	
SANTA ROSA					2	2				3	2		20		1			1		2	1	3					
SARASOTA	7					11							60		16	1		2				18					
SEMINOLE	9			8	3	2	1			6			301		19	1						9					
SUMTER	5			50	3	8			1				105		5							5					
SUWANNEE	8			8	8								113		5			3		2						
TAYLOR						1							48		14							19					1
UNION					1								174		1													
VOLUSIA	35			25	3	8	10		4	4			459	2	55		2	14		4	1	5					
WAKULLA	9												14		5							1					
WALTON				7	3					2			32		3			3		3	2	2					
WASHINGTON	9				1	1							25		7		2	1									

this disease would indicate that the situation in many areas was reaching a critical state. Most of the rabid animals were not from the cities but rather from the areas immediately adjoining the cities and presented a rather difficult problem of control.

The number of cases of typhoid reported were less than last year.

During the coming year reports will be issued covering detailed information on various communicable diseases in Florida.

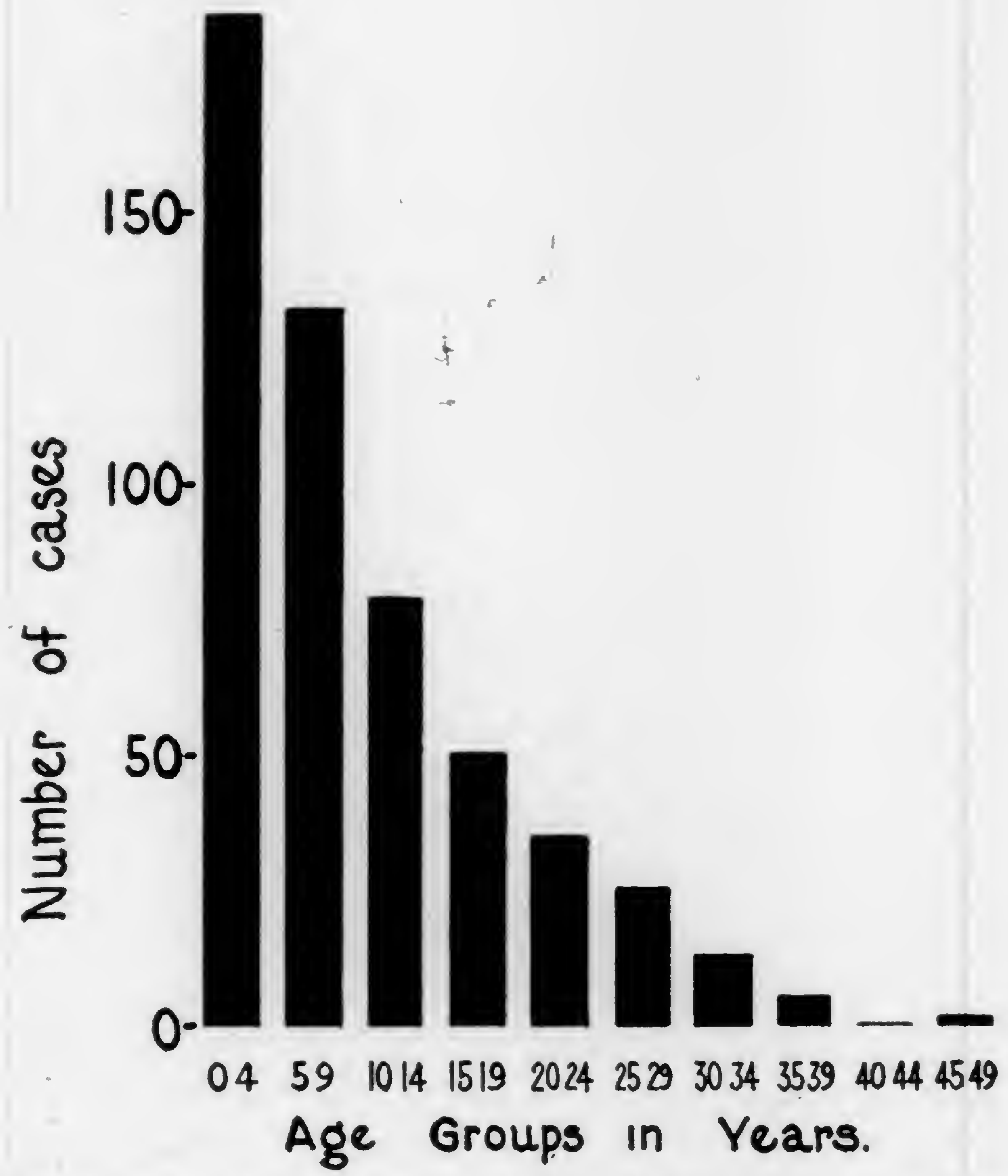

Figure No. 2—Age distribution of cases of poliomyelitis in Florida, 1946

EPIDEMIOLOGY OF HUMAN TYPHUS

Over a period of years there has been a gradual increase in the number of cases of typhus reported in Florida. In order to determine the epidemiology of the disease in this State, Dr. E. R. Rickard, staff member of the International Health Division of the Rockefeller Foundation, with the cooperation of the Bureau of Preventable Diseases has been studying the problem. In July, 1946, a statewide survey of the condition was begun. Typhus or suspected typhus cases were investigated by specially trained lay field investigators who worked under close medical supervision and filled out standard case history forms with the object of verifying the diagnosis and determining the probable place of infection for each case. The sources of information leading to cases were: Official reports to health departments, positive reports from state and private laboratories, hospital records, interviews with clinicians, information from patients or friends and neighbors of patients, and death certificates. Cases having their onset within the years 1944, 45, and 46 were included in the survey.

TABLE II—RESUME OF PROGRESS OF THE TYPHUS SURVEY
JULY 1 TO DECEMBER 31, 1946

County	Population	Number case histories completed	Number reported or suspect cases unable to be located for interview	Number cases pending investigation	Total typhus or suspect typhus cases 1944, 45, 46	Officially reported typhus cases — 1944, 45, 46
Calhoun	8,225	9	0	0	9	0
Charlotte	4,220	0	0	0	0	0
Collier	4,957	0	1	0	1	1
*Dade	315,138	124	52	200	376	164
DeSoto	6,854	11	14	0	25	2
Escambia	105,262	137	36	31	204	191
Flagler	2,652	1	0	0	1	1
Gadsden	30,992	35	4	3	42	14
Hardee	8,585	16	11	1	28	0
Hendry	5,066	0	0	0	0	0
Hernando	5,672	2	2	0	4	0
Highlands-Glades	18,5[illegible]1	8	2	2	12	7
Hillsboro	207,844	369	175	28	572	203
Jackson	34,509	18	4	10	32	2
Lake	27,946	32	3	3	38	20
Lee	23,593	21	3	0	24	2
Leon	35,451	23	9	10	42	19
Manatee	26,803	15	0	0	15	5
Marion	35,132	43	15	9	67	19
Orange	86,782	56	44	1	101	33
Pasco	13,729	17	1	0	18	4
Pinellas	130,268	64	24	12	100	62
Polk	112,429	78	18	21	117	54
St. Johns	21,596	29	18	19	66	3
Sarasota	19,202	43	11	0	44	10
Seminole	24,560	6	10	3	19	7
Sumter	10,417	8	1	2	11	1
Volusia	58,492	58	11	4	73	49
Total	1,349,745	1,223	469	349	2,041	873

*Survey only about half completed in this county.

In Table II the progress of the survey from July 1 to the end of the year has been statistically summarized. Here it may be observed that by the methods used, approximately two and one half times as many cases or suspected cases of typhus were demonstrated to have occurred as had been officially reported. Further analysis of data concerning probable place of infection, seasonal and geographical distribution, etc., will await the termination of the survey. Of the State's total population of 2,250,061 inhabitants, 1,349,745 or 60% live in the area so far covered by the survey. This area has been illustrated on Fig. 3.

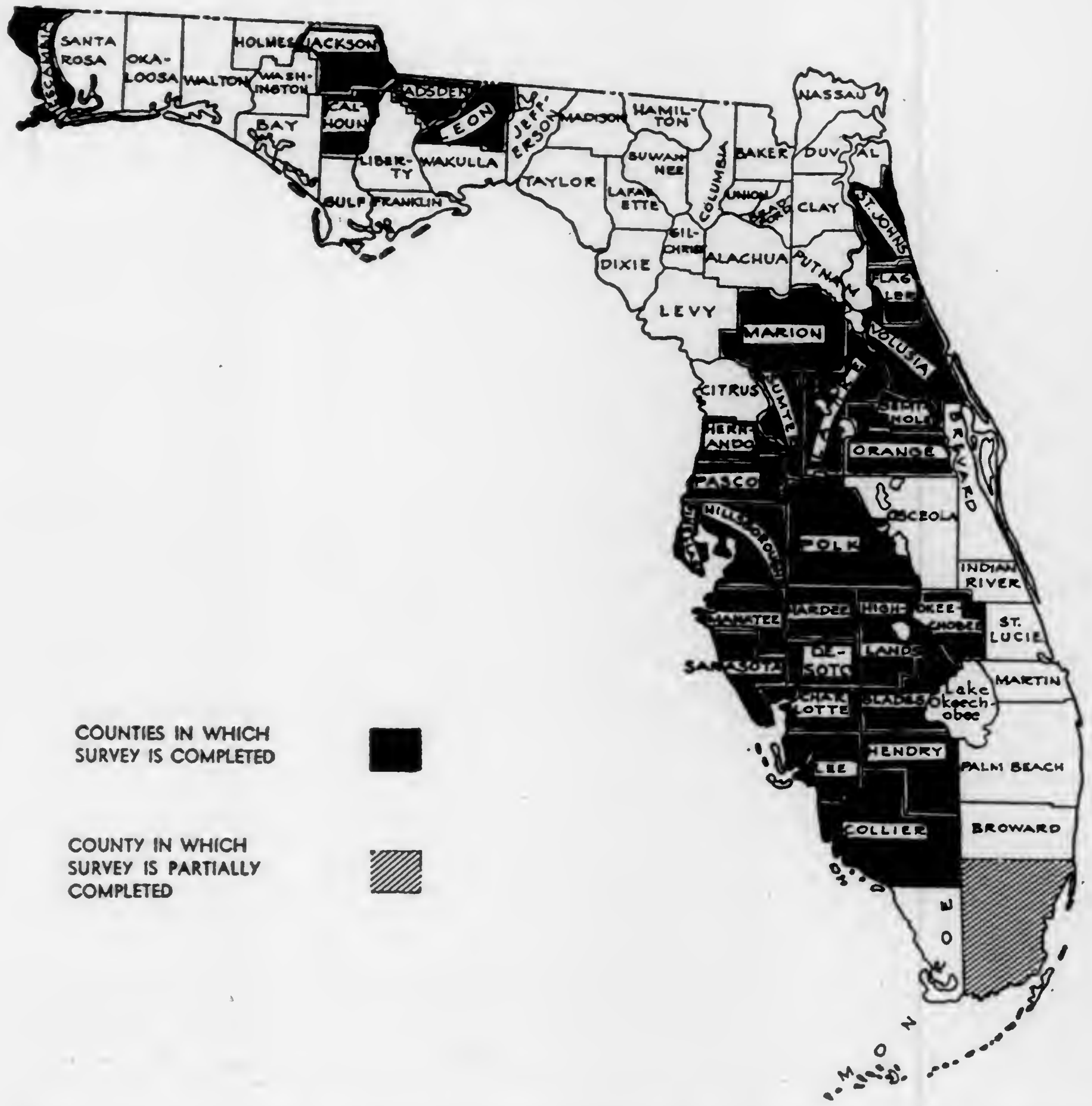

Figure No. 3—Counties in which typhus survey has been completed or partially completed

It is planned to complete the survey about April of 1947, at which time the epidemiological follow-up will be continued by the State Epidemiologist with the assistance of a lay investigator. It is hoped that on the basis of methods developed in the present survey future reporting and epidemiological information of typhus in Florida will be much more complete than in the past.

VENEREAL DISEASE CONTROL

R. F. SONDAG, M.D., Director

A year ago, in this publication, the following statement was made: "Now that the War is over, everyone should hold firmly to the great public health and law enforcement gains made during the War and pledge greater confidence and determination in an all-out effort to stamp out venereal diseases." One of the great public health mile posts to stamp out syphilis was the enactment in the 1945 Legislature of the Premarital and Prenatal laws, which became effective on October 1, 1945. Prior to 1945, those unfortunate individuals who married with venereal diseases and the diseased children of these marriages, suffered the grave effects of neglect. The 1945 Legislature, therefore, enacted laws which offer some ray of hope among those individuals who approach the altar unknowingly infected with syphilis, and made it possible for the first time by legislation to detect syphilis in expectant mothers and thereby prevent the birth of diseased children. All over the civilized world, the cry has always been WOMEN AND CHILDREN FIRST. Prior to the enactment of the Premarital and Prenatal laws, mothers and children were left to their doom—to become maimed, blind, paralyzed, insane, bedridden, or otherwise rendered helpless. These progressive laws are two in the armamentarium of health organizations hard at work fighting venereal diseases.

Blood tests of candidates for marriage licenses and of pregnant women are shown in Tables 3, 4, and 5. Since the laws have only been effective for the past fifteen months, 1946 is the first complete year on which results can be shown. Table 3 shows that 42,407 blood tests were made in compliance with the Premarital Blood Test Law, and of these 2,825 were positive. This means that in the absence of such a law, 2,825 individuals would have approached marriage blissfully ignorant that they were infected with syphilis. Over 2,800 cases of syphilis were discovered in 1946 by means of this law, and these individuals, after having been apprised of their infection, were allowed to marry, provided adequate treatment had been given or the disease rendered non-infectious.

During the 1943 Legislature, effective laws were enacted to lend support to fearless law enforcing agencies. Law enforcement representatives, therefore, have the tools by which they can correct and prevent conditions leading to a high venereal disease rate. Prevention must be as definite a police function as detection and apprehension.

WE HAD TEAMWORK DURING THE WAR AND IT BROUGHT RESULTS — LET'S NOT DISCARD IT NOW.

In Table 4, the results of the Prenatal Law reveal a total of 37,878 tests taken on expectant mothers, of which 1,938 were positive. In the absence of a Prenatal Law, over 1,900 expectant mothers could have gone to maturity unknowingly infected with syphilis and could have given birth to dead babies or babies infected with syphilis. The Prenatal Law is the most effective tool devised to aid in the elimination of congenital syphilis. That some progress has been made is reflected in the number of cases of congenital syphilis reported during the past few years. In 1943, cases of congenital syphilis reported to the State Board of Health totaled 753, and in 1946, the

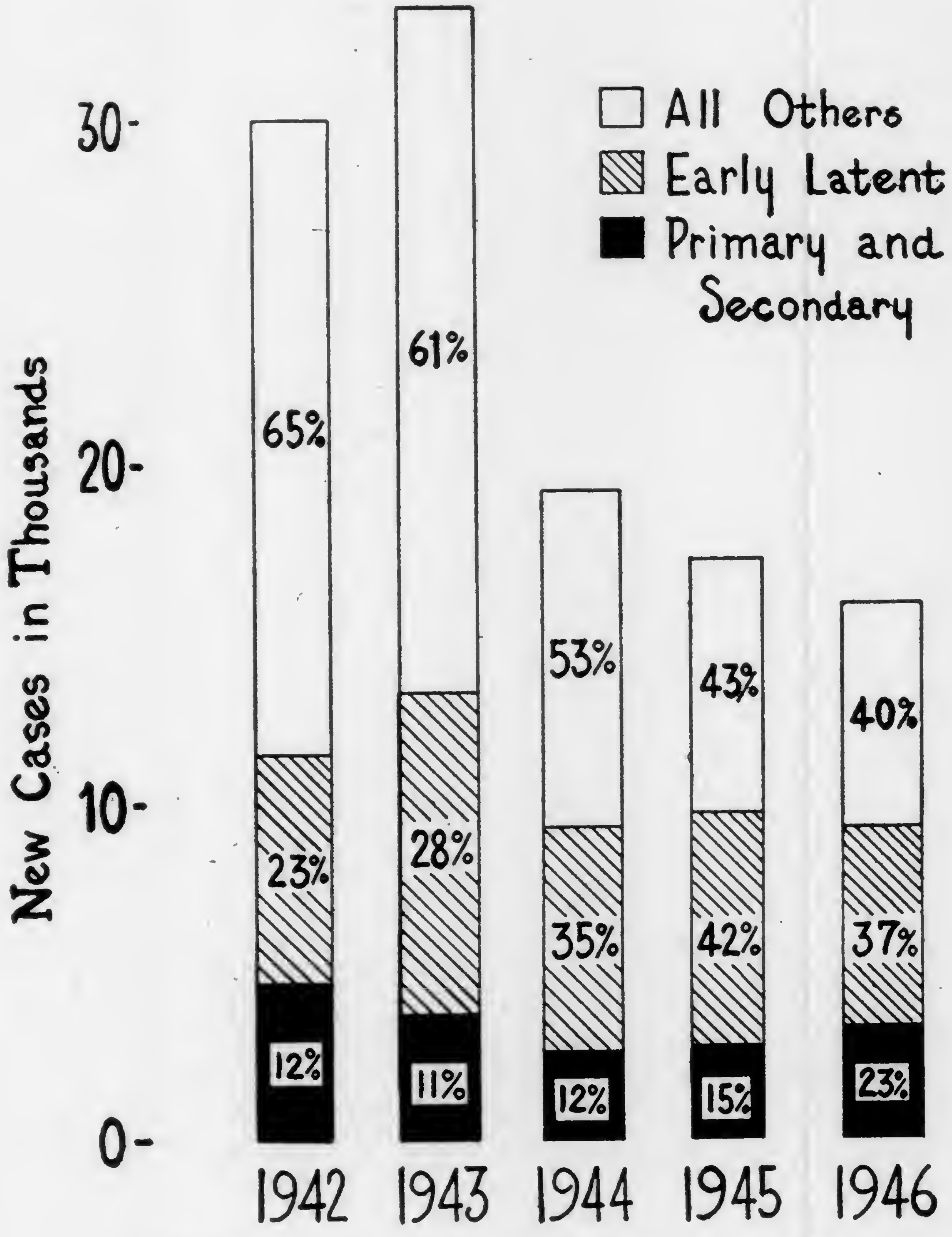

Figure 4—Total Cases of Syphilis Reported by Years.

TABLE III—NUMBER AND RESULTS OF SEROLOGICAL TESTS FOR SYPHILIS PERFORMED BY STATE LABORATORIES IN COMPLIANCE WITH PREMARITAL BLOOD TEST LAW, 1946

	NEGATIVE				DOUBTFUL				POSITIVE				TOTAL				Total
	Male		Female		Male		Female		Male		Female		Male		Female		
	White	Colored	White	Colored	White	Colored	White	Colored	White	Colored	White	Colored	White	Colored	White	Colored	
Number	14,465	4,444	15,392	4,873	59	129	73	147	311	930	302	1,282	14,835	5,503	15,767	6,302	42,407
Percents	97.50	80.75	97.62	77.32	.4	2.34	.46	2.33	2.1	16.90	1.91	20.34	35	13	37	15	100

TABLE IV—NUMBER AND RESULTS OF SEROLOGIC TESTS FOR SYPHILIS PERFORMED BY STATE LABORATORIES IN COMPLIANCE WITH PRENATAL BLOOD TEST LAW, 1946

	NEGATIVE		DOUBTFUL		POSITIVE		TOTAL		Total
	White	Colored	White	Colored	White	Colored	White	Colored	
Number	26,799	8,919	58	164	512	1,426	27,369	10,509	37,878
Percents	97.91	84.87	.21	1.56	1.88	13.57	72.70	27.30	100

first year of the Prenatal Law, 447 cases were brought to our attention. Every known method of follow-up is being utilized to make the Prenatal Law the most effective weapon in the elimination of congenital syphilis. As we progress with this effective weapon, congenital syphilis in the State of Florida should become a rare condition.

THE PREMARITAL AND PRENATAL LAWS HAVE ALREADY PROVEN A HUGE SUCCESS OVER THE FIRST FIFTEEN MONTHS OF OPERATION AND ADDITIONAL BENEFICIAL RESULTS WILL BE REFLECTED IN YEARS TO COME BY HAPPIER MARRIAGES AND STRONG, HEALTHY CHILDREN.

In this issue a year ago, it was also stated that "failure to hold the gains made in the control of venereal diseases would almost surely place Florida back on the unenviable list of states with high venereal disease rates." This should never happen—BUT IT IS HAPPENING. During war-time, a fine coöperative job achieved impressive gains in the fight against venereal diseases. The motivating factor of patriotism lent impetus to the cooperative effort, but as so many have predicted, we are not only beginning to slip back—we have slipped! The vital factor in the retreat from progress is the slackening of public interest and support. Since the war ended law enforcement against prostitution has relaxed. There is every reason to believe that those who control the prostitution racket have already developed plans to renew their activities. This movement must be resisted by every decent citizen in Florida because it carries with it disease and corruption. Law enforcement responsibility to a community is greater than that of any other agency and deserves the backing of every citizen in the correction and prevention of conditions leading to delinquency and disease. Proper discharge of police obligations and responsibilities requires dealing with the individual law violator, whose conduct menaces public health and safety, and close observation of places and conditions which may be regarded as breeding places for crime and delinquency.

TABLE V—NUMBER AND RESULTS OF SEROLOGIC TESTS FOR SYPHILIS BY STATE LABORATORIES IN COMPLIANCE WITH PREMARITAL AND PRENATAL LAWS BY RACE AND SEX, 1946

	NEGATIVE		DOUBTFUL		POSITIVE		TOTAL	
	Number	%	Number	%	Number	%	Number	%
Male	18,909	93.0	188	.9	1,241	6.1	20,338	100
Female	55,983	93.3	442	.8	3,522	5.9	59,947	100
White	56,656	97.7	190	.4	1,125	1.9	57,971	100
Colored	18,236	81.7	440	2.0	3,638	16.3	22,314	100
Total	194,784	93.3	1,260	.7	9,526	5.9	160,570	100

Prevention is still in the horse and buggy stage as compared to the streamlined advancements made in diagnosis and treatment of venereal diseases, yet prevention remains the key to successful control of venereal diseases. Venereal diseases are definitely preventable, but prevention is a broad task. Among other things, prevention means an understanding that conduct, and not medication, lies at the core of the venereal disease problem. Prevention means steady, vigorous citizen support of the work of law enforcement officials in repressing prostitution. Prevention means knowledge on the part of each and every person, young and old, of the dangers of venereal diseases, the need to avoid exposure, and to seek treatment promptly if infection occurs.

A splendid beginning has been made, but syphilis and gonorrhea remain formidable public health problems. Relaxation in control efforts reflects itself immediately in rising infections. That this is true is evidenced by a 43% increase in primary and secondary syphilis in 1946 as compared to 1945. As great as this increase might seem, it is estimated that many more cases of primary and secondary syphilis fail to come to the attention of private physicians and public health officials. These cases are the individuals who promote the spread of syphilis and gonorrhea and hinder the effective control of these diseases.

Greater attention and more trained personnel must be devoted to case finding activities. Every infectious case must be found and brought under medical care. Rapid treatment must be made available within reach of all who need it everywhere. Rapid treatment, which renders syphilis non-infectious, will go far toward wiping out syphilis if new cases can be found and brought under treatment fast enough. During 1946, 79% of the primary and secondary cases of syphilis discovered in Florida were referred to the rapid treatment center for intensive therapy. Tables 6 and 7 show the number of cases admitted to the rapid treatment centers by stage of disease, race and sex. During the year more cases could have been treated in the rapid treatment centers, had not this phase of the venereal disease control program met with some uncontrollable circumstances.

In April, 1946, a major fire destroyed half of the hospital at Ocala, necessitating a curtailment in admissions to that center. After this catastrophe, negotiations were started to acquire a new rapid treatment center, which finally culminated in the acquisition of the Ernest Hinds Hospital Ship, which was opened as a rapid treatment center on the St. Johns River in Jacksonville on July 1, 1946. This facility, too, had its limitations and it was necessary to restrict admissions on many occasions because of inadequate space.

As this goes to press, the State Board of Health is still searching for a suitable, modern facility to provide adequate treatment for all those in need of intensive therapy.

TABLE VI—ADMISSIONS AND READMISSIONS TO FLORIDA RAPID TREATMENT CENTERS, ACCCORDING TO RISEASE, STAGE OF INFECTION, RACE AND SEX, 1946

CENTER	DISEASE AND STAGE OF INFECTION																RACE		SEX	
	Primary and Secondary Syphilis	Early Latent Syphilis	Late and Late Latent Syphilis	Pregnancies	Congenital Syphilis	Central Nervous System Syphilis	Total Syphilis	Gonorrhea Alone	Other V. D.	Diagnostic and Post Treatment Observation	No Venereal Disease	Syphilis Readmissions	Gonorrhea Readmissions	Total Readmissions*	Total Admissions and Readmissions	White	Non-White	Male	Female
Ocala Rapid Treatment Center	1073	1693	240	55	137	197	3395	116	58	109	160	99	9	128	3966	536	3430	2076	1890
Jacksonville Rapid Treatment Center	326	172	100	25	14	56	693	8	5	51	14	66	0	66	837	395	442	473	364
Sub-Total	1399	1865	340	80	151	253	4088	124	63	160	174	165	9	194	4803	931	3872	2549	2254
Percents	29.4	38.8	7	1.6	3.2	5.3	85.1	2.6	1.3	3.3	3.6	3.4	.2	4.0	100	19.0	81.0	53.0	37.0
Ernest Hinds Treatment Center	1470	1799	327	155	172	364	4287	58	97	168	219	152	3	155	4984	923	4061	2413	2571
Percents	29.5	36.1	6.6	3.1	3.4	7.3	86.0	1.1	1.9	3.3	4.4	3.1	.1	3.1	100	19.0	81.0	48.0	52.
TOTAL	2869	3664	667	235	323	617	8375	182	160	328	393	317	12	349	9787	1854	7933	4962	4825
Percents	29.3	37.4	6.8	2.4	3.3	6.4	85.6	1.9	1.6	3.3	4.0	3.2	.1	3.6	100	19.0	81.0	51.0	49.

Ocala and Jacksonville RTCs closed June 30, 1946
Ernest Hinds Treatment Center opened at Jacksonville July 1, 1946
* Includes V. D. other than Syphilis and Gonorrhea.

TABLE VII—NUMBER OF CASES OF SYPHILIS REPORTED, BY STAGE OF INFECTION, WITH NUMBER AND PERCENT TREATED IN THE RAPID CENTERS, 1946

Stage of Syphilis	Total Cases Reported	Treated in RTC	Percent Treated in RTC
Primary and Secondary	3,651	2,869	79%
Early Latent	6,003	3,664	61%
Late and Late Latent	3,463	667	19%
Pregnancies	347	235	68%
Congential	447	323	72%
Central Nervous System	704	617	88%
Total Syphilis*	16,135	8,375	52%

*Includes Unknown Stage

TABLE VIII—NUMBER OF VENEREAL DISEASE CASES REPORTED IN FLORIDA, BY DISEASE AND YEAR, 1942-1946

Year	Syphilis	Gonorrhea	Chancroid	Granuloma Inguinale	Lymphopathia Venereum
1942	30,104	10,165	453	135	124
1943	33,540	16,925	844	251	254
1944	19,087	14,351	535	217	248
1945	16,546	18,088	722	244	197
1946	16,067	18,548	818	257	176

(Out of State Cases Excluded)

TABLE IX—NUMBER OF CASES OF SYPHILIS AND GONORRHEA REPORTED BY COUNTY—FLORIDA—1942-1946

COUNTY	1942		1943		1944		1945		1946	
	Syp.	Gon.	Syp.	Gon.	Syp.	Gon.	Syp.	Gon.	Syp.	Gon.
Alachua	965	105	784	118	348	65	307	187	439	266
Baker	76	20	45	10	31	25	30	13	30	33
Bay	412	255	553	422	437	454	323	868	187	169
Bradford	182	97	199	86	193	97	134	114	78	99
Brevard	168	2	419	91	73	33	120	40	168	28
Broward	773	110	742	231	479	258	349	210	383	341
Calhoun	26	2	48	5	9	1	6	1	7	6
Charlotte	170	8	65	33	15	17	5	15	15	5
Citrus	17	0	170	11	13	7	16	30	24	47
Clay Ex.	62	61	108	48	155	66	40	59	65	101
Camp Blanding	329	1478	316	1875	69	91	143	42	26	3
Collier	190	1	35	14	23	3	18	41	30	38
Columbia Ex.	59	8	714	24	88	31	64	48	137	161
Govt. Hospital			69	2	17	0				
Dade	4229	522	4459	1349	2588	2016	1724	2444	1627	2808
DeSoto	264	14	166	47	53	50	43	41	44	61
Dixie	74	1	215	0	14	5	27	39	23	50
Duval	3516	2115	6214	3032	3909	1826	2470	2387	2688	2814
Naval Air Base	31	428	36	503	43	529	62	706	1	123
Escambia	661	514	792	1127	812	1487	641	1934	684	1993
Flagler	79	11	94	8	108	55	173	70	98	85
Franklin	96	30	117	158	142	675	85	184	37	73
Gadsden Ex.	199	56	299	40	120	53	348	296	409	375
State Hospital	172	0	183	1	159	0	155	2	179	0
Gilchrist	42	0	4	1	1	0	4	5	21	13
Glades	110	7	18	8	32	6	29	3	26	6
Gulf	148	16	143	13	84	13	46	21	78	14
Hamilton	77	50	3	0	3	6	14	11	25	17
Hardee	95	17	36	5	34	10	16	9	20	0
Hendry	205	6	181	57	135	24	240	25	183	20
Hernando	53	0	142	2	9	5	3	11	34	5
Highlands	344	35	299	260	183	280	107	153	178	105
Hillsborough	2437	803	2920	1430	1417	1815	1205	2176	947	2330
Holmes	18	1	51	0	51	14	30	5	38	15
Indian River	210	11	279	16	68	22	153	40	114	31
Jackson	237	109	211	133	113	164	50	169	99	197
Jefferson	432	42	201	64	78	47	79	101	87	70
Lafayette	7	1	14	0	4	1	2	0	4	3
Lake	611	97	380	95	201	96	199	121	355	264
Lee	650	108	286	39	149	41	101	127	126	178
Leon	659	1111	450	687	359	1128	309	1123	368	761
Levy	301	15	152	62	10	3	65	26	93	32
Liberty	4	0	7	1	0	1	1	3	0	1
Madison	235	13	467	38	16	4	118	40	105	64
Manatee	503	35	218	187	178	84	184	241	157	322
Marion	359	27	1026	77	263	111	242	399	293	662
Martin	66	2	95	8	7	0	83	19	40	5
Monroe	147	80	308	171	142	220	117	228	78	209
Nassau	309	59	201	126	114	102	90	36	72	50
Okaloosa	140	24	171	248	61	224	42	164	28	19
Okeechobee	2	2	72	0	36	12	18	16	14	2
Orange Ex.	1023	629	850	846	580	313	781	514	721	528
Fla. T. B. Sanat.			2	1	2	0				
Osceola	132	3	113	9	6	4	16	6	36	6
Palm Beach	1245	258	1274	335	2324	353	2069	814	1398	780
Pasco	114	2	175	4	55	3	31	5	83	13
Pinellas	1111	277	927	596	370	319	268	279	386	504
Polk	690	34	1135	245	526	161	552	336	553	474
Putnam	401	6	320	39	82	37	193	67	232	25
Saint Johns	264	10	213	36	137	44	222	71	132	46
Saint Lucie	127	14	339	105	165	42	160	115	213	179
Santa Rosa	58	27	55	18	33	88	13	38	20	31
Sarasota	570	83	181	46	139	53	91	78	60	77
Seminole	1169	104	589	210	335	197	546	175	301	192
Sumter	227	14	190	165	85	6	93	24	105	66
Suwannee	259	9	377	10	9	4	34	17	13	48
Taylor	301	75	127	58	62	110	26	17	48	6
Union	24	1	20	1	11	7	15	12	31	18
State Prison			238	5	89	2	144	0	143	0
Volusia	944	83	660	260	310	186	350	460	459	435
Wakulla	85	15	111	290	16	21	15	11	14	25
Walton	164	12	46	45	58	69	55	48	32	9
Washington	45	0	141	22	47	55	42	57	25	12
Quarantine Hosps.			271	616						
Grand Total	30104	10165	33540	16925	19087	14351	16546	18088	16067	18548

(Out of State Excluded)

TABLE X—DISTRIBUTION OF DRUGS AS TO SOURCE AND KIND FURNISHED FOR 1944-1946

DRUGS	Distributed to Private Physicians			Distributed to Clinics, Hospitals and Others			Total Distributed		
	1944	1945	1946	1944	1945	1946	1944	1945	1946
Mapharsen (In doses)	36,270	13,080	14,688	398,820	234,680	68,205	435,090	247,760	82,893
Neoarsphenamine (In doses)	3,260	1,340	1,012	9,095	2,165	2,104	12,355	3,505	3,116
Sulpharsphenaminee (In doses)	155	5	55	2,760	1,045	541	2,915	1,050	596
Tryparsamide (In doses)	940	380	204	10,550	4,780	2,094	11,490	5,160	2,298
Bismuth (In cc's)	37,470	14,040	17,240	517,720	264,790	139,480	555,190	278,830	156,720
Sulfathiazole (In grams)	4,000	1,000	7,500	1,055,000	199,190	201,452	1,059,000	200,190	208,952
Distilled water (In cc's)	318,600	144,300	103,000	3,048,900	2,783,200	1,432,600	3,367,500	2,927,500	1,535,600
*Penicillin (100,000 unit vials)	0	747	1,184	10,920	107,862	82,954	10,920	108,609	84,138
Penicillin (200,000 unit vials)	0	0	269	0	0	9,693	0	0	9,962
Penicillin (500,000 unit vials)	0	0	0	0	0	3,110	0	0	3,110
Penicillin in Oil (In cc's)	0	0	410	0	0	12,350	0	0	12,760

*Penicillin distributed—1946 totaled 156,170,000 oxford units.

TABLE XI—REPORT OF SYPHILIS ACCORDING TO STAGE OF INFECTION, PREGNANCY STATUS, RACE AND SEX, SOURCE OF REFERENCE AND AGE GROUPS BY COUNTIES AND FOR STATE OF FLORIDA

COUNTY	BY STAGE OF INFECTION									Pregnancy	BY RACE AND SEX						Source of Ref.			BY AGE GROUP						
	Primary	Secondary	Early Latent	Late Latent	Late Other	Late C. N. S.	Cong.	Not Stated	Total		White M.	White F.	Colored M.	Colored F.	Not Stated	Total	Clinic or Inst.	Priv. M. D.	Not Stated	0-9	10-19	20-29	30-39	40-49	50-Over	Total
Alachua	49	39	182	102	0	10	22	35	439	7	21	28	155	209	26	439	351	88	27	14	100	160	83	36	19	439
Baker	3	5	7	4	1	4	1	5	30	4	3	2	11	14	0	30	22	8	0	1	3	11	7	6	2	30
Bay	16	52	70	21	0	6	2	20	187	10	18	28	57	77	7	187	130	57	7	2	50	77	28	15	8	187
Bradford	10	23	26	7	0	5	0	7	78	0	6	15	29	26	2	78	53	25	3	0	18	38	12	4	3	78
Brevard	7	22	59	29	1	10	5	35	168	4	8	18	53	83	6	168	57	111	6	4	16	58	50	18	16	168
Broward	28	32	208	72	1	12	10	20	383	23	27	24	144	169	19	383	262	121	27	3	68	157	74	36	18	383
Calhoun	1	1	4	0	0	0	1	0	7	0	4	3	0	0	0	7	5	2	1	1	2	3	0	0	0	7
Charlotte	2	6	4	1	0	0	0	2	15	0	2	4	3	6	0	15	11	4	1	0	3	7	0	3	1	15
Citrus	5	0	10	7	0	0	0	2	24	2	3	3	5	12	1	24	5	19	0	0	9	7	3	4	1	24
Clay	8	19	22	11	0	0	3	2	65	1	7	16	11	31	0	65	44	21	0	1	16	28	9	8	3	65
Collier	1	5	12	7	0	2	2	1	30	0	0	2	9	19	0	30	21	9	1	0	4	11	5	7	2	30
Columbia	13	11	51	39	0	7	6	10	137	3	14	14	41	67	1	137	61	76	7	5	22	53	22	21	7	137
Dade	151	211	645	352	12	60	34	162	1627	49	213	203	554	622	35	1627	1198	429	43	15	194	718	381	170	106	1627
DeSoto	4	8	10	13	0	0	2	7	44	2	4	11	10	15	4	44	18	26	3	2	4	15	9	8	3	44
Dixie	1	3	9	4	2	2	1	1	23	1	3	4	4	12	0	23	16	7	0	0	4	5	8	4	2	23
Duval	216	378	863	505	8	89	49	580	2688	68	300	335	812	1068	173	2688	1540	1148	282	30	338	974	562	298	204	2688
Escambia	104	110	310	123	6	16	13	2	684	10	69	76	239	295	5	684	563	121	6	7	145	320	132	47	27	684
Flagler	12	3	45	12	1	3	22	0	98	1	9	3	49	37	0	98	97	1	0	12	21	21	16	19	9	98
Franklin	5	3	11	13	0	1	0	4	37	2	5	2	11	10	9	37	18	19	1	0	6	17	4	4	5	37
Gadsden	73	44	219	39	1	5	13	15	409	9	12	14	136	241	6	409	293	116	20	6	101	137	81	42	22	409
Gilchrist	1	6	7	2	0	1	0	4	21	0	2	3	8	8	0	21	4	17	2	0	4	4	5	4	2	21
Glades	2	2	10	8	0	0	0	4	26	0	1	1	17	6	1	26	19	7	0	0	3	10	9	1	3	26
Gulf	3	9	33	24	2	2	3	2	78	0	7	8	28	33	2	78	55	23	7	2	16	30	10	9	4	78
Hamilton	4	5	8	5	0	1	1	1	25	1	3	2	7	10	3	25	20	5	0	0	7	9	6	2	1	25
Hardee	0	0	6	4	0	1	1	8	20	0	3	6	5	5	1	20	4	16	0	0	5	7	4	1	3	20
Hendry	8	23	131	6	0	9	1	5	183	0	2	3	153	21	4	183	167	16	3	0	5	113	41	18	3	183
Hernando	2	13	9	6	0	1	1	2	34	0	3	1	11	19	0	34	19	15	1	1	10	13	5	2	2	34
Highlands	32	22	70	27	0	7	2	18	178	3	7	14	67	82	8	178	107	71	7	1	28	67	44	22	9	178
Hillsborough	137	143	224	209	8	56	29	141	947	31	175	151	266	341	14	947	632	315	29	11	155	388	189	119	56	947
Holmes	4	3	13	9	0	2	6	1	38	2	11	16	6	4	1	38	33	5	3	3	7	9	8	3	5	38
Indian River	11	14	50	20	0	8	1	10	114	0	11	10	32	60	1	114	82	32	6	1	20	36	27	15	9	114
Jackson	15	12	53	12	0	2	4	1	99	2	10	18	27	38	6	99	89	10	12	2	21	44	9	8	3	99
Jefferson	6	15	48	7	0	3	3	5	87	1	3	8	30	45	1	87	68	19	4	1	36	29	7	5	5	87
Lafayette	0	2	0	1	0	0	1	0	4	0	0	2	2	0	0	4	3	1	0	1	1	1	0	1	0	4
Lake	48	47	124	72	6	21	5	32	355	6	34	34	152	119	16	355	221	134	18	3	43	148	94	27	22	355
Lee	28	16	55	14	0	2	1	10	126	0	10	7	52	40	17	126	93	33	39	1	11	45	15	10	5	126

TABLE XI (Continued)—REPORT OF SYPHILIS ACCORDING TO STAGE OF INFECTION, PREGNANCY STATUS, RACE AND SEX, SOURCE OF REFERENCE AND AGE GROUPS, BY COUNTIES AND FOR STATE OF FLORIDA

COUNTY	BY STAGE OF INFECTION									Pregnancy	BY RACE AND SEX						Source of Ref.			BY AGE GROUP						
	Primary	Secondary	Early Latent	Late Latent	Late Other	Late C. N. S.	Cong.	Not Stated	Total		White M.	White F.	Colored M.	Colored F.	Not Stated	Total	Clinic or Inst.	Priv. M. D.	Not Stated	0-9	10-19	20-29	30-39	40-49	50—Over	Total
Leon	38	42	132	76	0	5	5	70	368	4	34	15	127	115	77	368	228	140	63	2	63	126	71	26	17	368
Levy	9	8	42	17	1	6	3	7	93	0	4	4	35	48	2	93	78	15	4	0	21	24	23	16	5	93
Liberty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Madison	14	8	41	18	0	2	13	9	105	5	2	6	38	58	1	105	96	9	1	4	32	32	22	9	5	105
Manatee	18	20	65	26	0	11	11	6	157	4	17	20	47	72	1	157	127	30	6	4	36	55	27	23	6	157
Marion	27	42	121	71	0	3	12	17	293	2	17	16	102	142	16	293	215	78	27	3	43	120	50	28	22	293
Martin	2	11	10	9	0	1	1	6	40	1	5	3	14	15	3	40	20	20	8	0	3	10	6	7	6	40
Monroe	3	6	33	22	1	1	0	12	78	2	11	12	22	28	5	78	66	12	3	0	4	35	22	3	11	78
Nassau	2	11	19	28	0	1	1	10	72	9	4	2	26	37	3	72	29	43	3	1	14	25	15	7	7	72
Okaloosa	3	6	9	4	1	3	1	1	28	0	5	8	6	9	0	28	21	7	0	1	7	9	5	5	1	28
Okeechobee	2	1	6	1	0	3	0	1	14	0	0	0	9	5	0	14	10	4	0	0	1	6	4	1	2	14
Orange	104	115	253	91	1	28	22	107	721	12	77	104	198	259	83	721	423	298	54	14	104	293	149	72	35	721
Osceola	5	6	10	6	0	1	0	8	36	0	6	7	9	8	6	36	15	21	4	0	6	9	9	3	5	36
Palm Beach	87	138	663	295	10	83	41	81	1398	14	103	72	635	543	45	1398	995	403	30	11	189	627	350	126	65	1398
Pasco	4	14	24	28	0	1	0	12	83	2	9	14	11	46	3	83	14	69	3	0	12	27	20	14	7	83
Pinellas	61	88	131	57	2	7	14	26	386	12	65	69	109	132	11	386	273	113	16	7	78	158	59	43	25	386
Polk	58	53	160	123	3	15	19	122	553	6	52	59	160	244	38	553	255	298	49	11	82	210	109	63	29	553
Putnam	6	15	62	102	2	4	3	38	232	8	67	36	53	65	11	232	28	204	11	1	41	76	45	30	28	232
St. Johns	7	11	45	36	0	5	1	27	132	2	18	11	29	53	21	132	48	84	27	1	17	51	15	11	10	132
St. Lucie	19	17	96	30	0	9	7	35	213	3	10	12	94	86	11	213	166	47	12	6	30	87	45	26	7	213
Santa Rosa	4	0	10	3	0	1	0	2	20	0	3	4	6	7	0	20	17	3	0	0	6	7	3	2	2	20
Sarasota	1	7	29	12	0	3	2	6	60	1	7	7	20	24	2	60	36	24	3	1	8	23	15	9	1	60
Seminole	9	29	98	114	0	11	3	37	301	3	10	12	111	149	19	301	157	144	35	0	35	99	59	49	24	301
Sumter	7	5	41	28	5	12	6	1	105	3	20	6	41	34	4	105	55	50	3	3	12	35	31	8	13	105
Suwannee	7	10	64	16	0	9	4	3	113	4	8	12	44	46	3	113	91	22	19	3	16	29	21	14	11	113
Taylor	10	7	9	7	0	0	2	13	48	2	7	5	14	18	4	48	28	20	5	0	12	20	6	3	2	48
Union	5	8	11	5	0	0	1	1	31	1	3	4	10	14	0	31	24	7	1	1	4	16	3	5	1	31
Volusia	41	43	142	164	2	11	27	29	459	3	40	42	169	182	26	459	299	160	26	9	72	175	95	50	32	459
Wakulla	1	0	10	2	0	0	0	1	14	2	1	3	6	4	0	14	12	2	0	0	2	9	3	0	0	14
Walton	2	4	11	5	0	0	1	9	32	0	11	9	7	5	0	32	24	8	4	1	2	11	11	0	3	32
Washington	0	4	10	7	0	2	2	0	25	0	0	3	6	13	3	25	20	5	2	2	7	6	4	2	2	25
State Hospital	0	1	14	48	0	115	0	1	179	0	32	17	63	53	14	179	179	0	3	0	3	16	55	58	44	179
State Prison	3	0	0	140	0	0	0	0	143	0	38	4	91	13	2	143	143	0	63	0	8	25	26	13	8	143
Camp Blanding	19	2	4	0	0	1	0	0	26	0	7	0	19	0	0	26	26	0	0	0	0	23	3	0	0	26
Naval Air Station	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	0	0	0	1	0	0	0	1
Out of State	11	12	20	8	0	2	0	15	68	0	21	6	30	9	2	68	55	13	10	0	8	29	11	4	6	68
Florida—TOTAL	1600	2051	6003	3386	77	704	447	1867	16135	347	1720	1693	5557	6380	785	16135	10655	5480	1061	216	2474	6274	3351	1727	1032	16135

INDUSTRIAL HYGIENE

H. N. DOYLE, U.S.P.H.S

The 1945 session of the Florida Legislature amended the Workmen's Compensation Act to include occupational diseases. At the same time it directed the Workmen's Compensation Division of the Florida Industrial Commission to cooperate with the State Board of Health in making a study of occupational diseases among the industries of the State. This survey was inaugurated in January, 1946 under the auspices of the Division of Industrial Hygiene, U. S. Public Health Service. The survey which was completed in April, 1946, gave a total of 905 establishments employing 64,528 persons. The survey of these representative plants confirmed the conclusion that inadequate medical, sanitation, and welfare services were offered to the worker at his place of employment to protect him from occupational diseases. The results of this report also shows that potential occupational disease problems exist in certain groups of industry — namely, citrus canning, cigar, phosphate mining, and the manufacture of super-phosphates. The primary recommendation of this report was that a Division of Industrial Hygiene be established in the State Board of Health, and that its program be well integrated with the Workmen's Compensation Division of the Florida Industrial Commission, and other bureaus of the State Board of Health.

As a result of this report, the State Board of Health established in the Bureau of Preventable Diseases in August, 1946, a Division of Industrial Hygiene. The U. S. Public Health Service assigned to the State, Senior Assistant Engineer, Henry N. Doyle, to assist in its organization. During the ensuing calendar year most of the time was spent in organizing the Division, securing the necessary personnel, and purchasing the necessary laboratory and engineering equipment for its operation. By the end of the calendar year, the staff consisted of a State employed engineer and chemist, and arrangements had been completed to secure a physician director; who is to report for duty on February 1, 1947.

Financial assistance for the first year of operation was secured from the U. S. Public Health Service by a grant-in-aid fund of $16,253. However, the legislation has been prepared for introduction at the 1947 meeting of the Legislature to give the State authority to establish an administrative unit of Industrial Hygiene, and to secure an annual appropriation of $27,000.

Arrangements have been established with the Florida Industrial Commission for the Division of Industrial Hygiene to act as a consultant to this Agency for the control of occupational diseases and in the adjudication of claims arising from such. This is another responsibility designed to prevent and control occupational diseases. These rules and regulations have been formulated and submitted to the Florida Industrial Commission. The Commission has accepted this Code and its adoption is expected following public hearings early in 1947. The enforcement of these rules and regulations is to be entirely in the hands of the Industrial Commission and the Industrial

Hygiene Division is to only act as consultant. Another cooperative arrangement that has been established with the Industrial Commission is the treatment of venereal diseases among those men injured in industries that abide by Workmen's Compensation Act. The two agencies have established a film library on safety and related industrial subjects which is available to any industry within the State. In addition, the Division of Industrial Hygiene has assumed the responsibility to promote adult health service in industry.

Arrangements have been made to secure occupational disease reports from the Workmen's Compensation Division. These are to be studied and those that appear to be preventable will be investigated by this division. During the calendar year 434 occupational disease reports were received. This represented the period from April through December. In order to give magnitude of the occupational disease problem, the statistical break-down of these reports is shown in the following table:

Nature of Disability	
Chemical dermatitis	29
Other dermatitis	163
Chemical conjunctivitis	6
Other conjunctivitis	70
Fungi, larvae and parasites	43
Lead	4
Other metallics	5
Gas	7
Tenosynovitis	1
Meat infections	15
Chemical burns	21
Other infections	24
Traumatic	11
Heat	12
Respiratory	6
Other	17
TOTAL	434

BUREAU OF TUBERCULOSIS CONTROL

C. M. SHARP, M. D., Director

During the year 1946 there were 685 deaths from all forms of tuberculosis among the residents of the State of Florida. Of these 335 occurred in the white race comprising 76% of the total population of the State, and 350 deaths occurred among Negroes, which comprises only 24% of the total population. It thus becomes evident that 51% of the tuberculosis deaths occurred among 24% of the population.

DEATH RATES

The tuberculosis death rate during 1946 for residents of the State of Florida was 29.3 per 100,000 population, which is a decrease from the rate of 30.9 in 1945. In 1946 there were 685 deaths from tuberculosis as compared with 701 deaths in 1945. For white residents, the tuberculosis death rate was 18.9 per 100,000 population, which was the lowest death rate which has been reported in the State of Florida for its white population. As compared to the 1939, 1940 and 1941 rates compiled during the last census, there has been an appreciable decrease in the tuberculosis mortality rates. The average of the mortality rates for the three years 1939, 1940 and 1941 show a rate of 47.3 deaths per 100,000. During the year 1946, however, there was a rate of 62.0 per 100,000 for the colored population of the State, which is almost four times as high as for the white population. Table XII shows the tuberculosis mortality rates by race from 1917 through 1946 which has been plotted in Fig. 5.

REPORTED CASES

During 1946 there were 2,437 cases of tuberculosis reported in the State of Florida, including 295 cases which were first reported by death certificate. The corresponding number of cases reported for 1945 was 1,086. In Table XIII an attempt has been made to analyze the cases reported for 1946 by stage of disease, race, sex and color, by age groups and by source of report. It will be noted in this table that only 25 of the 52 organized counties have been analyzed. An analysis of the entire 2,437 cases is impossible at this time due to the fact that only 25 counties have been worked up for the central case register which was inaugurated during the last year. These 25 counties, however, comprise 68% of the total population of the State, and it is expected that during 1947 the case register will be complete for an analysis at any given time.

In the case register there are 25 counties which represent 1,831 newly reported cases for 1946. It will be noted that the greatest number of new cases reported are from Duval County where there were 353 new cases of tuberculosis. The second largest number was from

Hillsborough County where there were 340 cases, and the third largest number was from Dade County where there were 303 cases reported.

One of the striking features of Table XIII is that of all of the cases reported 471 were in the far advanced stages. Another feature is that the vast majority of the cases reported were among white residents, in spite of the fact that over 51% of all of the deaths were among the Negro race, which comprise only 24% of the population of the State. There were 347 moderately advanced cases and only 253 minimal cases reported during the year with a total of 344 whose stage is not known at the present time. This is in marked contrast to findings in mass x-ray surveys where the vast majority of cases found are in the early stages (see Case-Finding).

The source of reporting tuberculosis in the State is shown by Fig. 6. This graph represents 100% of all of the 2,437 cases reported. The largest number reported were by county and city health departments, which comprise a total of 716 cases. The second highest number reported were in old cases which were newly reported comprise 511 cases. These cases were known to some sources but have never been reported officially as a case of tuberculosis. The third greatest number of cases reported were from death certificates. It will be noted that 43% of all deaths from tuberculosis in the State of Florida were first reported by death certificate. Three percent of all of the deaths in the State of Florida during 1946 were caused by tuberculosis.

TABLE XII—DEATHS FROM TUBERCULOSIS (All Forms) AND DEATH RATES PER 100,000 POPULATION, DISTRIBUTED TO COLOR, FOR EACH YEAR, FLORIDA, 1917-1946

YEAR	TOTAL	RATE	WHITE	RATE	COLORED	RATE
1946	685	29.3	335	18.9	350	62.0
1945	701	30.9	340	19.9	361	64.9
1944	791	36.0	369	23.1	422	70.8
1943	834	43.6	363	26.0	471	91.0
1942	859	44.9	360	25.8	499	96.4
1941	916	47.9	362	26.0	554	107.0
1940	961	50.3	379	27.2	582	112.4
1939	921	49.7	376	27.9	545	107.3
1938	987	55.0	407	31.4	580	116.4
1937	966	55.6	400	32.0	566	115.8
1936	905	53.9	387	32.3	518	108.2
1935	903	55.7	397	34.5	506	107.9
1934	953	60.1	381	33.9	572	123.9
1933	1,039	66.9	398	36.1	641	142.1
1932	1,093	71.5	395	36.5	698	156.2
1931	1,067	70.8	427	40.1	640	144.8
1930	1,015	68.6	432	41.3	583	134.0
1929	1,014	70.8	416	41.3	598	140.6
1928	1,102	79.7	481	49.7	621	149.5
1927	1,097	82.2	463	49.8	634	156.4
1926	1,187	92.3	519	58.3	668	169.0
1925	999	80.8	426	50.0	573	148.7
1924	1,054	88.7	457	56.2	597	159.1
1923	1,079	94.7	490	63.3	589	161.2
1922	1,019	93.5	440	59.9	579	163.0
1921	951	91.3	401	57.6	550	159.3
1920	1,016	102.3	423	64.3	593	176.8
1919	993	103.7	461	73.4	532	161.6
1918	1,084	115.9	494	81.2	590	180.4
1917	1,085	118.9	472	80.3	613	188.7

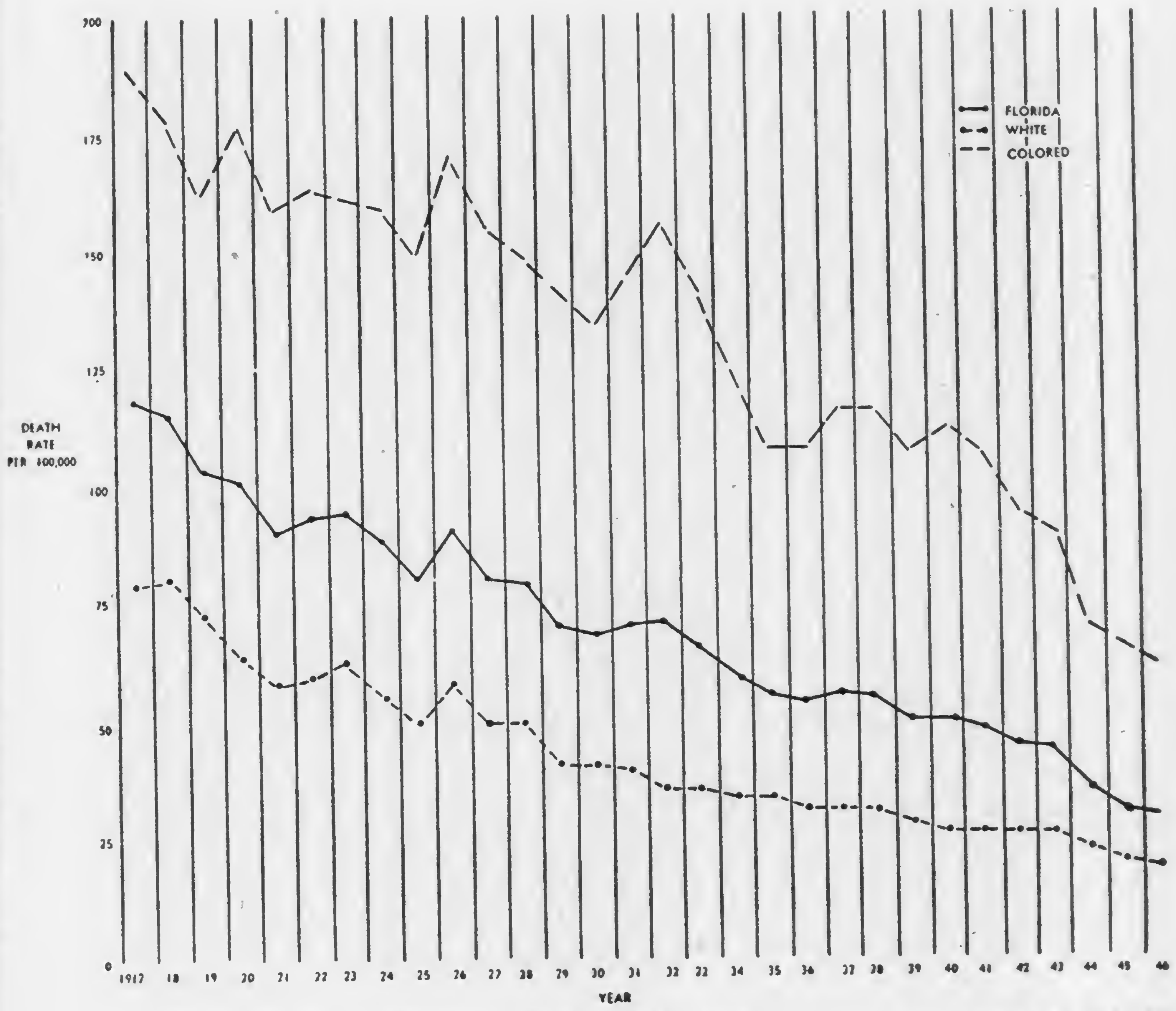

Figure No. 5—Tuberculosis death rates for total population and races per 100,000

TABLE XIII—ANALYSIS OF 1931 TUBERCULOSIS CASES REPORTED DURING 1946 OF COUNTIES WORKED FOR CASE REGISTER BY STAGE OF DISEASE, RACE AND SEX, SOURCE OF REPORT AND AGE GROUP

	STAGE OF DISEASE											BY RACE AND SEX							SOURCE OF REPORT													BY AGE GROUP								
	Unofficial Reports						Official Reports						White		Colored		Color Not Stated																							
		X-Ray Imp. Only																																						
COUNTY	Positive Sputum	Primary	Minimal	M. A.	F. A.	Stage Unknown	Primary	Minimal	M. A.	F. A.	Stage Unknown	Total	Male	Female	Male	Female	Male	Female	Total	Private Physicians	County and City Health Departments	General Hospital	Sanatorium	Death Certificates	Veterans Hospital	Out of State Reports	Old Cases Newly Reported	Selective Service	Miscellaneous	X-Ray Impression Only	Laboratory Report	Total	0-10	11-20	21-30	31-40	41-50	51-60	61 and Over	Not Stated	Total
Alachua		3	2	1	1	1	4	27	17	20	12	88	25	24	19	18	2		88	3	23		5	3	2	1	42		1	8		88	7	3	11	13	21	7	18	8	88
Baker	2							2	2	2	1	9	6	1	1	1			9	4			1	1			1				2	9			3	2	1	1	2		9
Bay								8	10	14	5	37	15	12	2	3	1	4	37	1	11		16	3			5		1			37		2	10	5	6	5	3	6	37
Broward			1					3	3	16	7	30	6	5	9	10			30	2	8		5	5	5		4			1		30		1	8	9	2	6	2	2	30
Dade	9							23	75	102	94	303	139	87	40	29	4	4	303	10	138	33	8	48	17	9	31				9	303	1	16	59	67	57	46	42	15	303
Dixie										1		1			1				1								1					1			1						1
Duval	27		11	7	2	5	1	18	49	79	154	353	113	46	107	61	19	7	353	10	71	36	30	60	14	3	68	1	8	25	27	353	11	14	65	86	63	32	28	54	353
Escambia	2						4	20	20	24	37	107	36	19	26	21	4	1	107	17	51	1	8	11	2		15				2	107	4	13	24	24	14	10	13	5	107
Franklin									1	4	1	6	5	1					6		5		1									6	1		3			2			6
Gadsden	1		6			2		14	10	12	2	47	10	11	17	8		1	47	3	22	1	7	1	1		3			8	1	47		2	3	12	8	9	10	3	47
Gulf			2	1		1			3	2	2	11	5	3	2	1			11		1		1	1			4			4		11			2	3	2	3		1	11
Hillsborough	3							57	69	95	116	340	174	110	28	23	5		340	42	89	1	9	19	3	3	168	2	1		3	340	2	11	54	80	60	44	38	51	340
Jackson	2	1	1	4	2		1	1	5	4	4	25	9	6	4	3	2	1	25	2		1	7	3			2			8	2	25	1	3	4	3	6	3	2	3	25
Lafayette None																																									
Lake	1	1	2			1		1	1	7	7	21	8	7	2	4			21	1	9			4			1		1	4	1	21	1	1	2	3	4	4	4	2	21
Leon	1	1	1					28	20	14	9	74	34	17	9	8	4	2	74	12	28		4	2	4	21				2	1	74	1	2	12	19	14	10	9	7	74
Nassau		1				1	2	4	2	3	2	15	4	3	5	3			15		6	1	1				2		3	2		15		4	2	5	1	2		1	15
Orange	6		2	1	2	1	1	21	17	31	25	107	42	24	20	14	3	4	107	5	39	3	15	6	1		26			6	6	107	3	1	20	23	18	18	11	13	107
Polk	39		4	6		1	6	15	19	30	34	154	41	47	25	27	6	8	154	5	39		16	17	3	1	23			11	39	154	5	11	27	35	26	23	11	16	154
Santa Rosa	3							2		1	2	8	1	4	1		1	1	8	1	2		1	1							3	8			2	2	1		1	2	8
Seminole	1		1					5	5	2	13	27	9	4	9	5			27	5	4		1	6		3	6			1	1	27	1	1	5	7	2	5	5	1	27
Suwannee										3	4	7	2		1	2	2		7		1		2	2	1		1					7			1		3	1		2	7
Volusia	1		5	1		1		4	15	12	10	49	18	18	4	6	2	1	49	2	25		4	2	1	2	4		1	7	1	49		2	12	8	11	5	7	4	49
Wakulla		1							2	1		4	2	1		1			4		2						1			1		4		1		3					4
Washington		1							2	2	3	8	5	2	1				8	1							6			1		8	1	2	1	1		1		2	8
	98	9	38	21	7	14	19	253	347	481	544	1831	709	452	333	248	55	34	1831	126	574	77	142	195	54	43	414	3	16	89	98	1831	39	90	331	410	320	237	206	198	1831

The number and percentage of tuberculosis cases reported by age groups for the calendar year 1946 are shown in Fig. 7. It will be noted that the highest number of cases reported occurred between the ages 21-50. Another very striking feature concerning the race and sex of the cases reported is shown in Fig. 8. Of the total cases reported 1531 were among white residents while only 769 cases were reported among the Negro race, who accounted for 51% of all tuberculosis deaths during 1946.

Fig. 9 shows the percentage of tuberculosis cases reported by sex and age groups during the calendar year 1946. It will be noted that 62% of all white cases reported occurred among males as against 39% among females. Of the cases reported among the Negroes 59% were among the males as against 41% among females. It is, therefore, extremely obvious that there has been a great deficiency in the work done concerning the finding and reporting of cases among Negroes, and increased emphasis should be placed upon case finding in this population group. The death rate from tuberculosis among Negroes in the State will continue to be high until the needs of the Negro population are adequately met in case finding and in facilities for hospitalization, which are extremely inadequate.

In further discussion of Fig. 9, the incidence of tuberculosis in each age group, in decades, show that the male rate is consistently higher in all age groups except in the age group between 11-20 where the female incidence is higher. This, however, is consistent with generally accepted statistics on this subject.

An analysis of the tuberculosis cases in the central register is very revealing. It shows that of a total of 6,500 cases in the register, 5,490 are cases who are at home, while only 898 cases are located in sanatoria. There are 3,900 cases whose sputum is undetermined and 900 cases in the home whose sputum is positive. An analysis of the

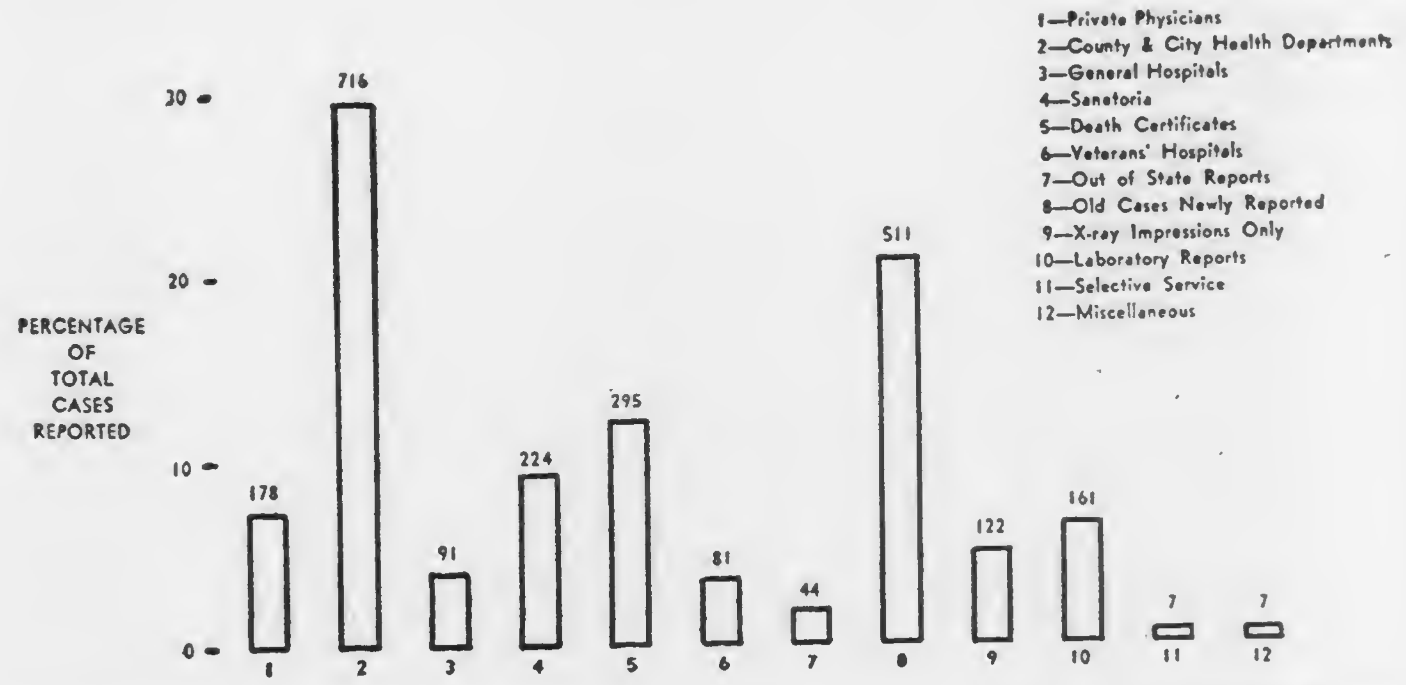

Figure No. 6—Number and percentage of tuberculosis cases reported by source of report for 1946

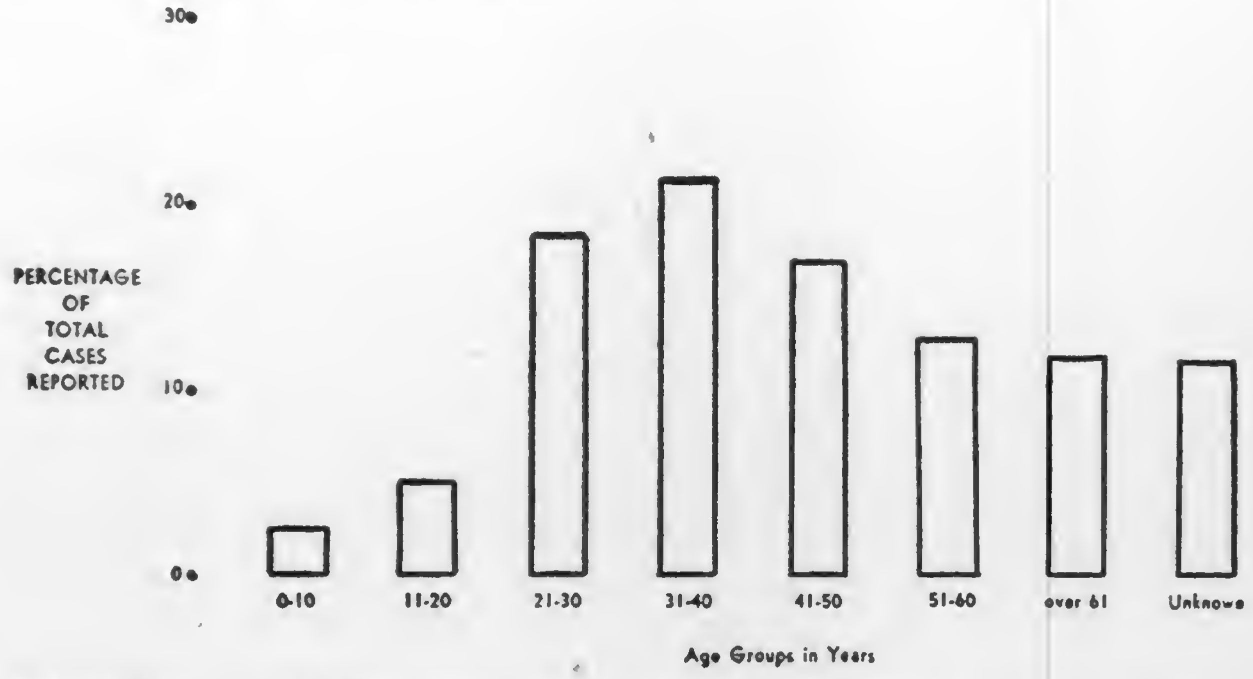

Figure No. 7—Number and percentage of tuberculosis cases reported by age groups—1946

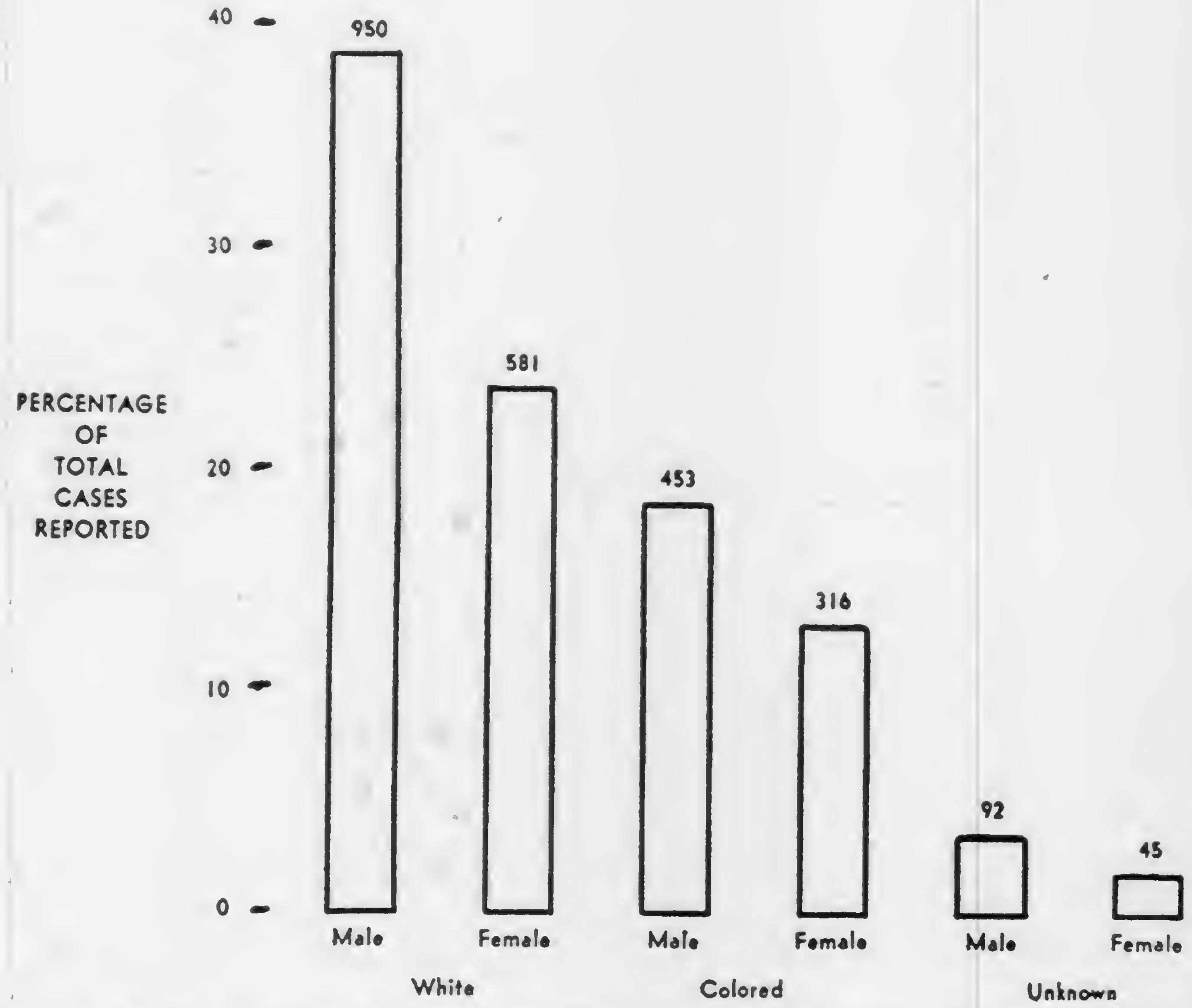

Figure No. 8—Number and percentage of tuberculosis cases reported by race and sex, 1946

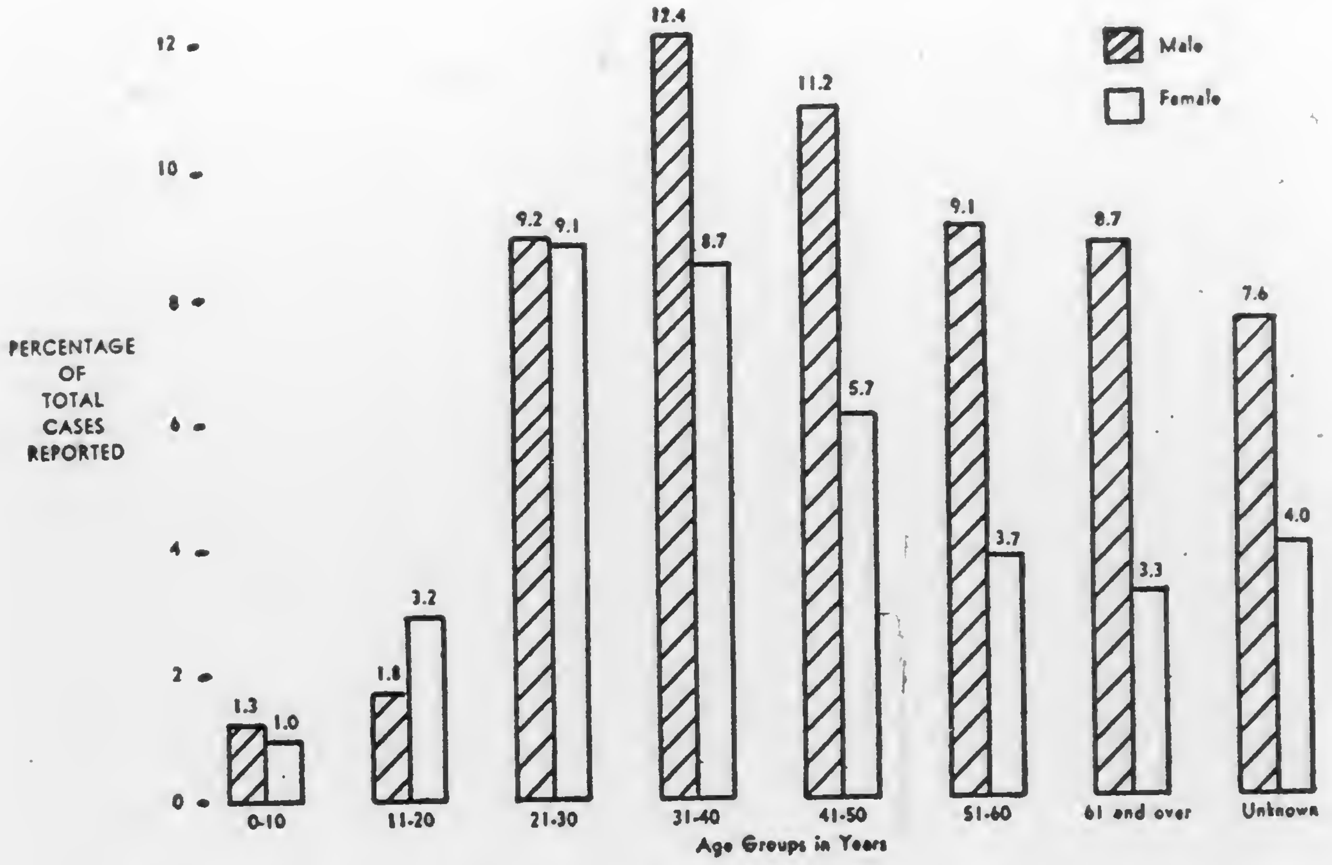

Figure No. 9—Percentage of tuberculosis cases reported by sex and age groups, 1946

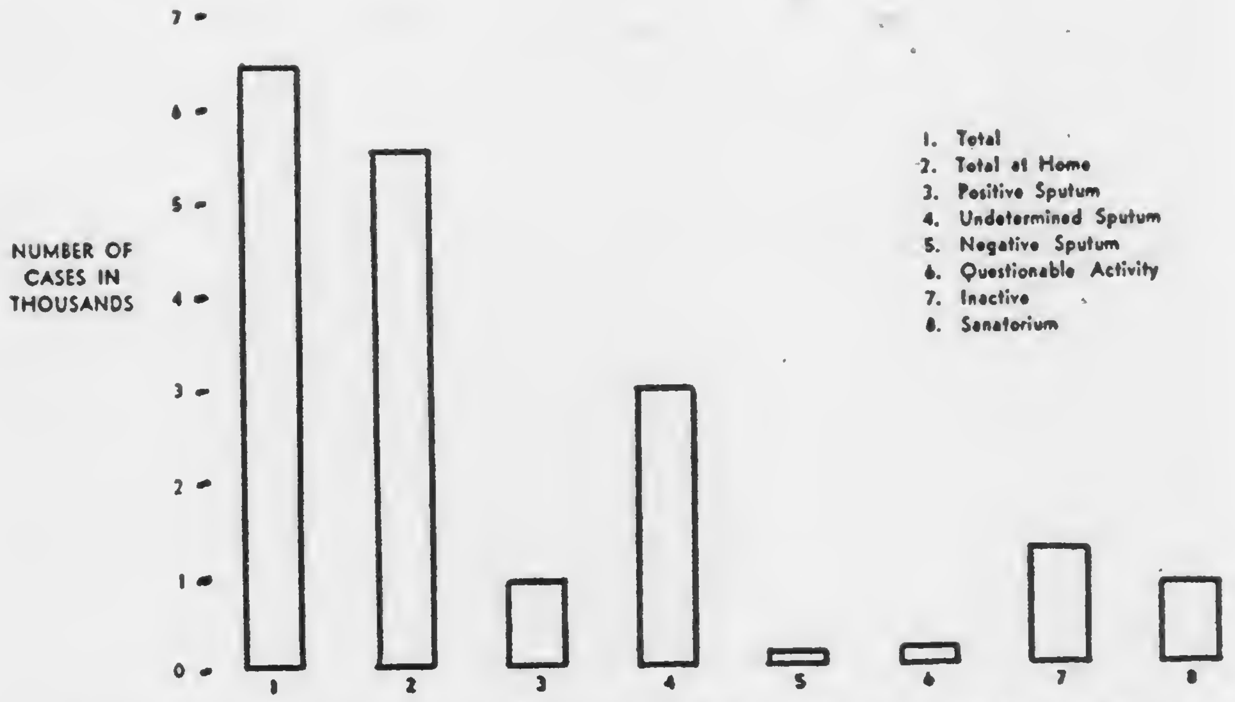

Figure No. 10—Number of tuberculosis cases in State register by sputum status, activity and sanatorium care, Feb. 1, 1947

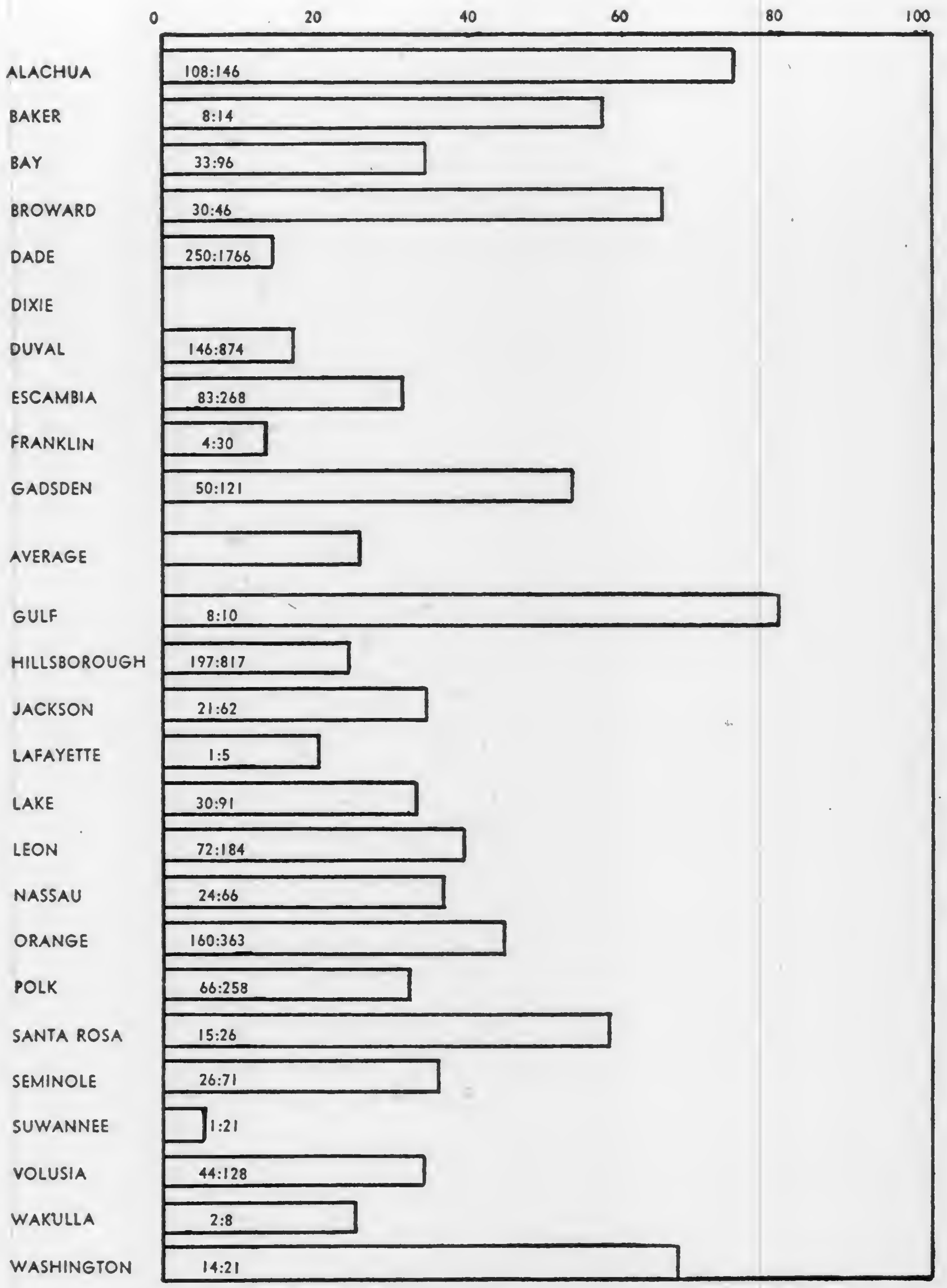

Figure No. 11—Percentage of tuberculosis cases with current examination status. 25 counties in Florida, Feb. 1, 1947. Includes only cases at home, excludes cases in sanatorium

cases in the central case register is shown in Fig. 10, which shows the current status of the 6,500 cases.

Fig. 11 shows an analysis of the current examination status of the 25 counties analyzed in the central case register. It is rather distressing to learn that the average patient whose examination status is current, that is those who have received an examination within the last six months, is only 23%. This undoubtedly shows how much work needs to be done in the State in bringing the tuberculosis case load to a current examination status.

Table XIV shows the number of tuberculosis cases in the State of Florida, by county, as of February 1, 1947.

DIAGNOSTIC SERVICE

During the last calendar year the Bureau of Tuberculosis Control has attempted to establish diagnostic and treatment centers in 14 of the larger centers of population. These centers did not begin adequate operations except in minor instances until the last quarter of the calendar year. In addition to the permanent diagnostic centers which have been established in the various county health departments, a portable x-ray clinic service has been available to the smaller county health departments for examination of contacts and known cases of tuberculosis about once every three months.

In the last six months of 1946 there were 62 portable diagnostic x-ray clinics held totalling 2,419 14″x17″ x-rays, averaging about 40 x-rays to a clinic. Following 57 of these x-ray clinics a personal visit was made to the local county health departments by a clinician from the Bureau of Tuberculosis Control, and a medical clinic was held with patients found by the visit of the diagnostic x-ray unit. An average of 15 patients per clinic were seen. This personal visit by the tuberculosis clinician was of considerable benefit to local health department personnel, and to tuberculosis patients who had been at a loss as to where to continue their post-sanatorium supervision. During the coming year a marked expansion of this clinic service is anticipated.

During the year 1946 there were 6,324 14″x17″ x-rays reviewed by the Bureau of Tuberculosis Control. These films were sent in for interpretation by local county health departments, by private physicians, by tuberculosis and health associations, and 2,797 were taken by the Bureau of Tuberculosis Control in its traveling x-ray clinics, including the films taken at the Rapid Treatment Center in Jacksonville. A critical analysis of the 6,324 films broken down according to diagnosis, and by color, sex and decade of life is shown in Table XV.

A few comments on the above mentioned statistics are in order. Of all the films reviewed in these diagnostic centers 13.7% showed some evidence of reinfection tuberculosis. Of films on individuals over twenty-one years of age, the percentage of reinfection type tuberculosis was 18.0%. This is good evidence that from a public health standpoint x-rays on children at least under the age of puberty and perhaps even older are wasted. Frequently the x-ray itself is unsatisfactory and, if not, it may well fail to reveal anything significant, even in a clinically ill child.

The groups showing the highest percentage of reinfection tuberculosis were the white males over 60 years of age, and the colored males between 51 and 60 years of age. White females between the ages of 21 and 30 showed the lowest percentage in the adult groups in spite of the high number of films taken in this group. Generally,

TABLE XIV—NUMBER OF CASES OF TUBERCULOSIS IN FLORIDA
February 1, 1947, by County
(Preliminary figures)

County — (Not in Register)	No. Cases
Bradford	46
Brevard	65
Broward	165
Calhoun	26
Charlotte	10
Citrus	21
Clay	108
Collier	24
Columbia	65
DeSoto	31
Flagler	15
Gilchrist	19
Glades	11
Hamilton	30
Hardee	29
Hendry	20
Hernando	17
Highlands	62
Holmes	19
Indian River	56
Jefferson	31
Lee	63
Levy	87
Liberty	6
Madison	60
Manatee	90
Marion	164
Martin	26
Okaloosa	38
Okeechobee	6
Osceola	41
Palm Beach	489
Pasco	37
Pinellas	694
Putnam	40
St. Johns	61
St. Lucie	48
Sarasota	131
Sumter	37
Taylor	83
Union	81
Walton	36
Chattahoochee (Mental Hospital)	400
Total	2,414
County — (In Register)	**No. Cases**
Alachua	169
Baker	17
Bay	126
Dade	1,952
Dixie	16
Duval*	193
Escambia	338
Franklin	41
Gadsden	148
Gulf	12
Hillsborough	1,174
Jackson	75
Jacksonville (City)	1,250
Lafayette	6
Lake	186
Leon	203
Monroe	164
Nassau	79
Polk	458
Santa Rosa	36
Seminole	122
Suwannee	27
Volusia	154
Wakulla	18
Washington	25
Orange	472
Total	7,461
Total in register	7,461
Total not in register	2,414
GRAND TOTAL	9,735

*Does not include Jacksonville

TABLE XV—ANALYSIS OF CLINIC AND CONSULTATION X-RAYS BY AGE, SEX COLOR AND STAGE OF THE DISEASE, 1946

	NEG.	UNS.	MIN-A.	MIN-IN.	MOD-A.	MOD-IN.	FAR	ARR.	PRIM.	SUSP.	OTHER	TOTALS	PER-CENT OF TOTAL	PER-CENT OF "T" OF EACH
0 — 10														
W–M	137	12	0	0	0	0	0	0	38	4	3	194	3.0	0
F	119	8	0	0	0	0	0	0	21	4	1	153	2.4	0
C–M	54	2	0	0	0	0	0	0	23	1	1	81	1.3	0
F	46	1	0	0	0	0	0	0	10	2	2	61	1.0	0
11 — 20														
W–M	283	13	0	0	1	0	0	1	14	14	4	330	5.2	0.6
F	333	13	8	1	2	0	3	0	5	16	4	385	6.1	3.7
C–M	121	2	0	0	0	0	0	0	3	15	2	143	2.3	0
F	124	5	0	0	0	0	0	0	7	9	1	146	2.3	0
21 — 30														
W–M	248	5	8	7	14	2	8	4	0	15	8	319	5.0	13.5
F	439	15	10	6	9	3	2	7	0	17	6	514	8.2	7.2
C–M	119	2	8	2	6	1	7	5	0	4	1	155	2.4	18.0
F	186	1	8	1	7	1	8	2	0	18	3	235	3.7	11.5
31 — 40														
W–M	291	13	20	12	12	8	12	6	0	21	8	403	6.4	17.3
F	402	19	21	20	10	3	9	19	0	20	9	532	8.4	15.4
C–M	183	5	8	7	5	5	16	3	0	11	9	202	3.2	21.7
F	175	8	6	3	7	3	14	3	0	13	9	241	3.8	15.1
41 — 50														
W–M	215	12	13	13	6	6	22	7	0	14	7	315	5.0	21.2
F	263	9	28	7	12	4	11	4	0	19	7	359	5.7	16.7
C–M	90	5	7	8	6	1	9	0	0	14	11	151	2.4	19.9
F	130	5	0	6	5	0	7	0	0	6	8	167	2.6	10.8
51 — 60														
W–M	124	9	15	6	14	7	13	1	0	24	12	225	3.6	24.9
F	154	8	7	8	14	3	5	5	0	19	4	227	3.6	18.5
C–M	55	3	7	8	10	1	12	2	0	7	13	118	1.9	33.8
F	66	1	3	2	1	2	2	2	0	6	2	87	1.4	20.7
61 -														
W–M	130	4	22	19	21	8	12	1	0	18	20	255	3.9	36.0
F	109	3	6	8	7	5	6	6	0	20	12	182	2.9	18.1
C–M	52	2	2	8	5	3	3	2	0	5	4	86	1.4	26.7
F	38	3	2	4	4	0	4	1	0	2	0	58	0.9	26.0
TOTALS	4,636	188	204	156	178	66	185	81	121	338	171	6,324	100%	
PERCENTAGE	73.3%	3.0%	3.2%	2.4%	2.8%	1.0%	3.0%	1.3%	2.0%	5.3%	2.7%			

AVERAGE 13.7% (Re-infection Tuberculosis)

DIAGNOSTIC SERVICE — continued

males ran a higher percentage than females in each group in both races. (See Fig. 12).

It is most important to note that 5.7% of all films revealed late tuberculosis, either active moderate or far advanced disease. These were films on patients NOT in sanatoria, but exposing the population to the tubercle bacilli until isolated.

With increased expansion of diagnostic facilities during the coming year the incidence of diagnosed cases is expected to be higher. Emphasis has been placed upon examination of contacts to known cases for the purpose of finding early cases of tuberculosis, since it is well known that incidence of the disease among household contacts is approximately 14 times higher than among the general population.

COLLAPSE THERAPY FOR EX-SANATORIUM PATIENTS

Treatment centers have been established in Pensacola, Daytona Beach and Orlando, where pneumothorax refills may be continued at their county health departments by clinicians who operate on a fee basis. In addition Hillsborough County and Pinellas County have established full-time tuberculosis clinicians, and Dade County has continued its program of chest clinics with a full-time tuberculosis clinician.

MASS CASE FINDING

Increased emphasis has been placed on mass case finding during the last calendar year. All new 70 mm. equipment has been obtained. The year was begun with two units, the United States Public Health Service unit, which was assigned to this State in 1944 continued operation throughout the entire year as a portable unit, depending upon local current to function. The State unit began the year with 35 mm. equipment mounted in a bus and having its own generator and motor. This unit took chest x-rays from January through June. In August a 70 mm. unit was mounted in the trailer with its own motor and generator. In October another 70 mm. unit was added which was used as a portable unit depending upon local current, but was later transferred to a bus unit with its own generating equipment, and began operation January 2, 1947. The units did mass surveys in various counties and cities throughout the State.

A summary of the United States Public Health Service unit is shown in Table XVI. This unit examined 37,532 persons demonstrating 443 definite or suspicious cases of tuberculosis or 11.8 cases per 1,000 examined. In addition there were 167 patients demonstrating pathology other than tuberculosis.

During the year the units operated by the State Board of Health examined 67,074 persons in ten months of operation. The result of these surveys are shown in Table XVII. Of all the persons examined 729 showed definite or suspicious tuberculosis and 217 revealed pathology other than tuberculosis. In each thousand persons examined by the State units 10.8 showed definite or suspicious tuberculosis.

Prior to 1946 very little emphasis was placed on follow-up of cases demonstrated by mass survey equipment. During the year 1946, however, particularly during the latter half, great emphasis have been placed on follow-up of cases demonstrated in mass surveys. In Table XVIII the results of the follow-up of surveys with 14"x17" x-rays is shown with the number of cases of definite tuberculosis found per 1,000. The average percentage of follow-up with 14"x17".

No attempt was made to do follow-up on the cases demonstrated by the 35 mm. unit which was in operation during the first six months of the last year. After receipt of the 70 mm. units an intensive attempt has been made to follow-up with large films the cases of definite or suspicious tuberculosis as shown in Table XVIII.

In addition to the four units now available for mass community-wide x-ray surveys in the various counties, facilities were made available during the latter part of the year for full-time 70 mm. stationary equipment in the Hillsborough and Dade County Health Departments. These units were made available during 1946 but did not begin operation until the beginning of 1947, consequently no figures are available for the operation of these stationary units.

HOSPITAL AND SANATORIUM FACILITIES

Hospital and sanatorium facilities in the State of Florida were increased during the last year by the opening of a new sanatorium in Marianna, Florida, with a capacity of 250 beds, and in Tampa, Florida, with a capacity of 450 beds. It is now much easier to obtain hospitalization for those far advanced cases which constitute such a severe

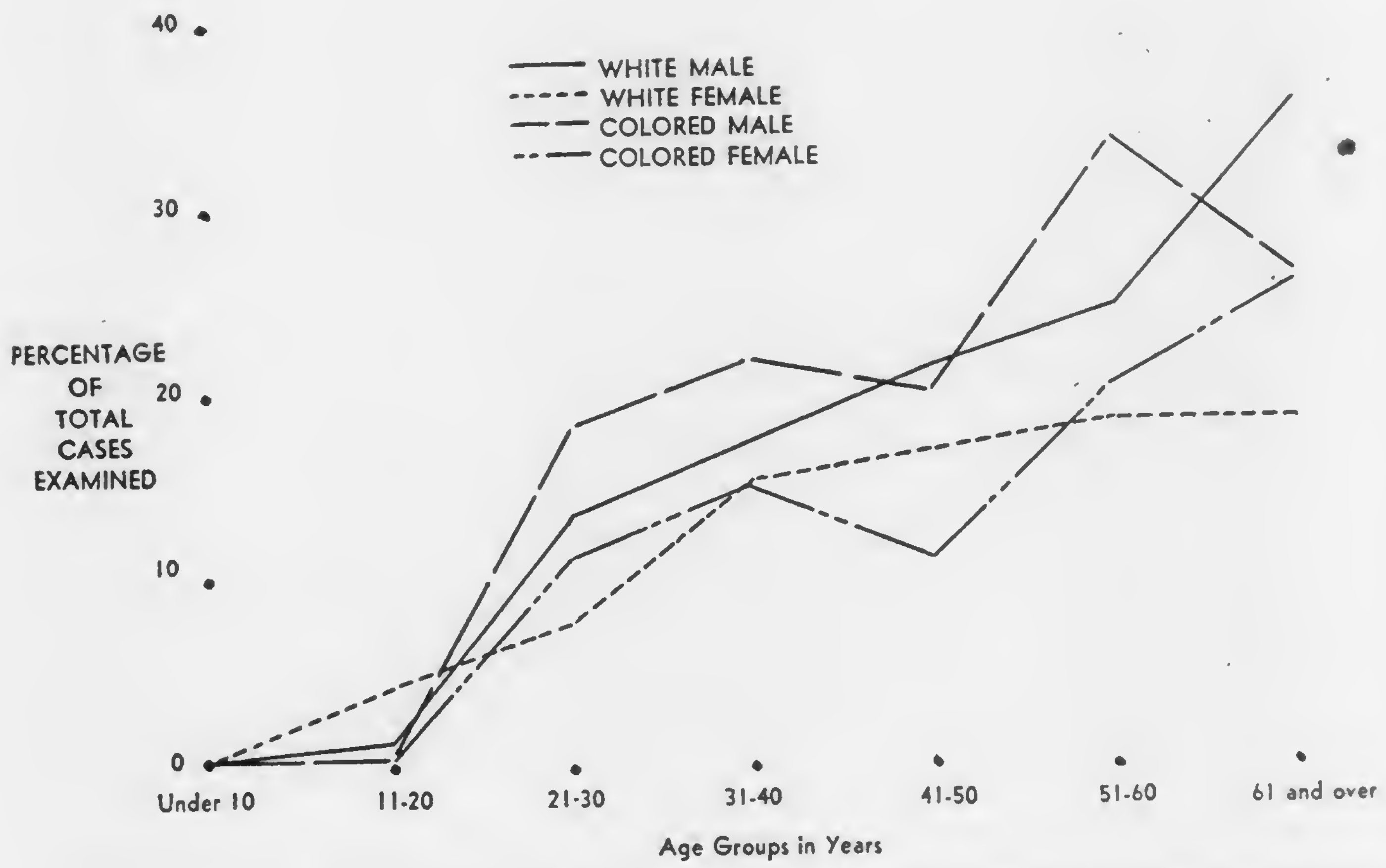

Figure No. 12—Percentage of total cases examined found to have tuberculosis, by age, color, sex.

TABLE XVI—SUMMARY OF MINIATURE FILM TAKEN BY USPHS UNIT JANUARY 1, 1946—DECEMBER 20, 1946

Location	Persons Examined	Negative	Tbc. and Susp. Tbc.	Tbc. & Susp. Tbc. Per Thousand People Examined	Other Pathology
Jacksonville	7,720	7,526	121	15.6	73
Camp Blanding	291	285	3	10.3	3
Jacksonville Beach	573	568	4	7.0	1
F. S. C. Tallahassee	1,975	1,953	19	9.6	3
Florida A.&M. Tallahassee	1,226	1,207	17	13.8	2
Metal Containers Corp.	556	550	5	9.0	1
Pensacola Naval Air	4,487	4,433	46	10.2	8
Jacksonville Naval Air	5,266	5,164	65	12.3	37
Cecil Field, Jacksonville	170	166	3	17.6	1
Jacksonville Terminal Co.	1,043	1,014	20	19.2	9
Seaboard Rail Shop	991	973	15	16.2	3
Lake City Veterans Hosp.	270	270	0	0	0
Bethune Cookman College	935	931	4	4.3	0
Ft. Pierce (white)	2,597	2,543	46	7.8	8
Ft. Pierce (colored)	2,006	1,955	39	9.2	12
Ft. Pierce Ideal Holding	200	200	0	0	0
Deland High School	504	504	0	0	0
Euclid High, Deland	119	118	0	0	1
Stetson University	1,801	1,791	9	4.9	1
New Smyrna Beach	303	301	2	6.7	0
Mainland High, Daytona	584	584	0	0	0
Seabreeze High, Daytona	302	302	0	0	0
St Augustine	2,495	2,473	18	7.2	4
St. Augustine	525	523	2	3.8	0
St. Augustine	593	588	5	8.4	0
TOTAL	37,532	36,922	443	11.8	167

TABLE XVII—SUMMARY OF MINIATURE FILM TAKEN BY STATE UNITS JANUARY 1, 1946—DECEMBER 20, 1946

Location Name	Persons Examined	Negative	Tbc. and Susp. Tbc.	Tbc. & Susp. Tbc. Per Thousand People Examined	Other Pathology
Duval County S. B. H.	118	117	1	8.5	0
Okeechobee County	514	513	1	1.9	0
Palm Beach County	509	506	2	3.9	1
Migratory Camps	3,260	3,237	10	3.1	13
Hendry County	897	880	11	12.2	6
Glades	207	205	1	4.8	1
Hardee	485	477	3	6.2	5
Highlands County	1,078	1,064	12	11.1	2
Desoto County	770	758	7	8.1	5
Collier County	228	225	2	8.8	1
Lee County	1,290	1,280	6	4.7	4
Charlotte County	334	332	1	3.0	1
Sarasota County	1,550	1,529	11	7.1	10
Manatee County	3,296	3,250	30	9.1	16
Sumter County	520	513	5	9.6	2
Lake County	3,107	3,083	12	3.8	12
Pinellas County	11,103	10,926	162	14.6	15
Duval County Swisher & Son	766	752	9	11.7	5
Gadsden	7,430	7,323	84	11.3	23
Escambia	10,091	9,928	128	12.6	35
Leon	14,234	14,029	155	10.8	50
Jackson	3,650	3,587	55	15.0	8
Washington	1,345	1,324	19	14.1	2
Duval S. B. H.	292	290	2	7.0	0
TOTALS	67,074	66,128	729	10.8	
USPHS TOTALS	37,532	36,922	443	11.8	167
	104,606	103,050	1,172	11.2	384

public health problem, and for which facilities for hospitalization have not been available.

State tuberculosis hospitals are not under the jurisdiction of the State Board of Health, and the annual report of the State Tuberculosis Sanatoria will show the statistical summary of the patients admitted to sanatoria. It might be stated, however, that 596 patients were admitted to sanatoria as a result of the activities by local health departments and the Bureau of Tuberculosis Control.

TUBERCULOSIS ACTIVITIES IN COUNTIES

There was also greatly expanded tuberculosis activity in the various county health departments. A total of 16,530 patient visits were made to the various clinics operated by the local health departments, and 20,069 field nursing visits as well as 3,212 office nursing visits. In general, there has been great expansion of the tuberculosis control activities during the last year, but there is still a great need for additional training of public health nurses to implement our program of tuberculosis control by the generalized nursing service in local health departments.

TABLE XVIII—SUMMARY OF 14"X17" X-RAY FOLLOW-UP ON MASS X-RAY SURVEYS

	MINIATURE FILMS			14"X17" X-RAY FOLLOW-UP		
Location	Satisfactory Films Taken	T & S	14"X17" Follow up on T & S	% 14"X17" Follow-up on T & S	Cases of Reinfection Tbc. found with 14X17	Cases of Tbc. found per 1000 70 mm Films Taken
Gadsden County	7,430	84	74	88.0	34	5.1
Escambia County	10,091	128	25	19.4	14	7.3
Leon County	14,234	155	107	69.0	42	4.5
Jackson County	3,650	55	38	69.0	11	4.4
Washington County	1,345	19	19	100.0	7	5.0
Duval (S. B. H.) County	292	2	2	100.0	1	4,1
Jacksonville	7,720	121	100	82.6	27	4.2
Camp Blanding	291	3	2	66.6	1	5.1
Jacksonville Beach	573	4	2	50.0	2	7.0
F.S.C.W., Tallahassee	1,975	19	19	100.0	5	2.5
Florida A&M, Tallahassee	1,226	17	17	100.0	4	3.3
National Container Corp.	556	5	5	100.0	2	2.6
Pensacola Naval Air	4,487	46	37	80.4	13	3.6
Jacksonville Naval Air	5,266	65	64	98.4	35	6.7
Cecil Field, Jacksonville	170	3	3	100.0	1	6.0
Jacksonville Terminal Co.	1,043	20	7	35.0	1	2.7
Seaboard Rail Shop	991	15	3	20.0	1	4.8
Lake City Veterans Hospital	270	0				
Bethune-Cookman College	975	4	3	75.0	0	0
Ft. Pierce (white)	2,597	46	45	98.0	25	9.8
Ft. Pierce (colored)	2,006	39	38	97.4	12	6.1
Ft. Pierce Ideal Holding	200	0				
Deland High School	504	0				
Euclid High	119	0				
Stetson University	1,801	9	5	55.5	1	1.0
New Smyrna Beach	303	2	2	100.0	2	6.0
Mainland High, Daytona	584	0				
Seabreeze High, Daytona	302	0				
St Augustine (City)	2,495	18	18	100.0	10	4.1
St Augustine (Col. Normal School)	525	2	0	0		
St. Augustine (Hastings)	593	5	3	60.0	3	8.3
TOTALS	74,574	886	636	71.8	25	3.4

BUREAU OF MALARIA CONTROL

JOHN A. MULRENNAN, Director

The Bureau of Malaria Control was established in 1941 and since that time it has been supported partially by funds and personnel from the Rockefeller Foundation. The Foundation withdrew its support on June 30, 1946. The State has continued to contribute to the salary of the director and Mrs. Nina Branch, medical technologist.

The U. S. Public Health Service, Communicable Disease Center has allotted personnel, equipment, DDT and paid for travel to the amount of approximately $325,000 for the calendar year 1946.

EPIDEMIOLOGICAL INFORMATION

The malaria death rate for the year was the lowest that has ever been recorded for the State. A total of 17 was reported as compared to 22 deaths in 1945. No blood surveys were conducted during the year. It was not considered worthwhile since the parasite rate had been practically nil in previous years. Practically all of the blood postive malaria smears were confirmed from returned veterans. This information is available in the report of the Bureau of Laboratories.

DDT RESIDUAL SPRAY PROGRAM

Interior House Spraying — House spraying with DDT was carried out in moderate to high quad producing areas in twenty-three approved counties and a few homes were sprayed in a malarious area in Bay County which was not on the list as an approved county. See Table XIX.

A 5% DDT water emulsion was applied to the walls at the rate of approximately 200 milligrams per square foot.

The spray program was initiated on April 1 and terminated on September 25. During this period of time 47,206 houses were sprayed one time and 13,582 houses were given a second application. It took 154,132 pints of 35% DDT, xylene, triton concentrate and 62,316 man-hours of labor to accomplish the spraying.

After-spraying Inspections — The effectiveness of DDT residual spray program was evaluated during this season by after-spraying inspection of houses to determine the infestation with malaria vectors. Of 3,641 inspections made, *Anopheles quadrimaculatus* was found present in 25 houses. The total of adult "quads" in these 25 houses was only 38. Higher protection against the malaria vector over a longer period of time was obtained by increasing the amount of DDT crystals applied to wall surfaces in an emulsion carrier. During the 1945 season the 100 mg. of DDT per square foot of wall surface gave protection for a three months period after which the population of *Anopheles quadrimaculatus* in houses increased sharply. The 200 mg. of DDT per square foot gave a high degree of protection throughout the mosquito season for as long as six months after the time of spraying. Results of the 1945 and 1946 seasons are presented in Fig. 13.

Anopheline Host Preference Studies — Another method of evaluating the success of the residual spray program as a malaria control measure was by the collection of anophelines that had recently taken a blood meal from a human or animal. These were captured in houses, barns, privies and other buildings where they rest during the day.

Results are shown in the accompanying table. Human blood postive *Anopheles quadrimaculatus* amounted to only 0.3758% of the specimens collected before spray was applied. The application of DDT residual spray reduced this by 63.03%.

COMPARISON OF THE EFFECT OF DDT RESIDUAL HOUSE SPRAYING ON ANOPHELINE HOST PREFERENCES FLORIDA 1946

Anophelines Tested From Capture Stations
Stations in Unsprayed Areas

Species	No. Specimens Collected	Number with Human Blood	Percent with Human Blood
A. quadrimaculatus	5587	21	0.37518
A. crucians	1887	1	0.00529
	Stations in Areas with Sprayed Homes		
A. quadrimaculatus	2878	4	0.1389
A. crucians	1448	3	0.0207

TABLE XIX—SUMMARY OF DDT HOUSE SPRAYING—1946

County	Total Houses One Application	Total Houses Two Applications	Man-Hours Spray Time	Pints 35% DDT Concentrate
Alachua	2,929	341	3,670	6,412
Bay	12		12	24
Calhoun	1,267	356	1,441	3,641
Citrus	1,678	548	2,270	3,327
Dixie	1,066	496	1,510	4,686
Gadsden	2,921	821	4,129	11,226
Gilchrist	268	1	270	807
Gulf	496	295	496	1,440
Hamilton	1,969	516	2,733	5,889
Hernando	771		826	826*
Holmes	2,398	733	3,137	6,631
Jackson	5,700	2,170	7,484	21,691
Jefferson	2,721	1,012	3,868	11,199
Lafayette	315	77	363	1,182
Levy	1,425	533	2,170	4,610
Leon	3,262	1,070	4,890	12,996
Madison	4,416	1,041	3,975	16,371
Marion	3,415	756	5,137	9,846
Sumter	1,938	384	2,337	5,305
Suwannee	2,747	815	3,917	8,185
Taylor	874	352	1,432	3,798
Walton	1,751	493	2,324	4,118
Wakulla	572	320	909	2,676
Washington	2,295	452	3,016	7,246
Total	47,206	13,582	62,316	154,132

*Low figure due to great number of only porches sprayed.

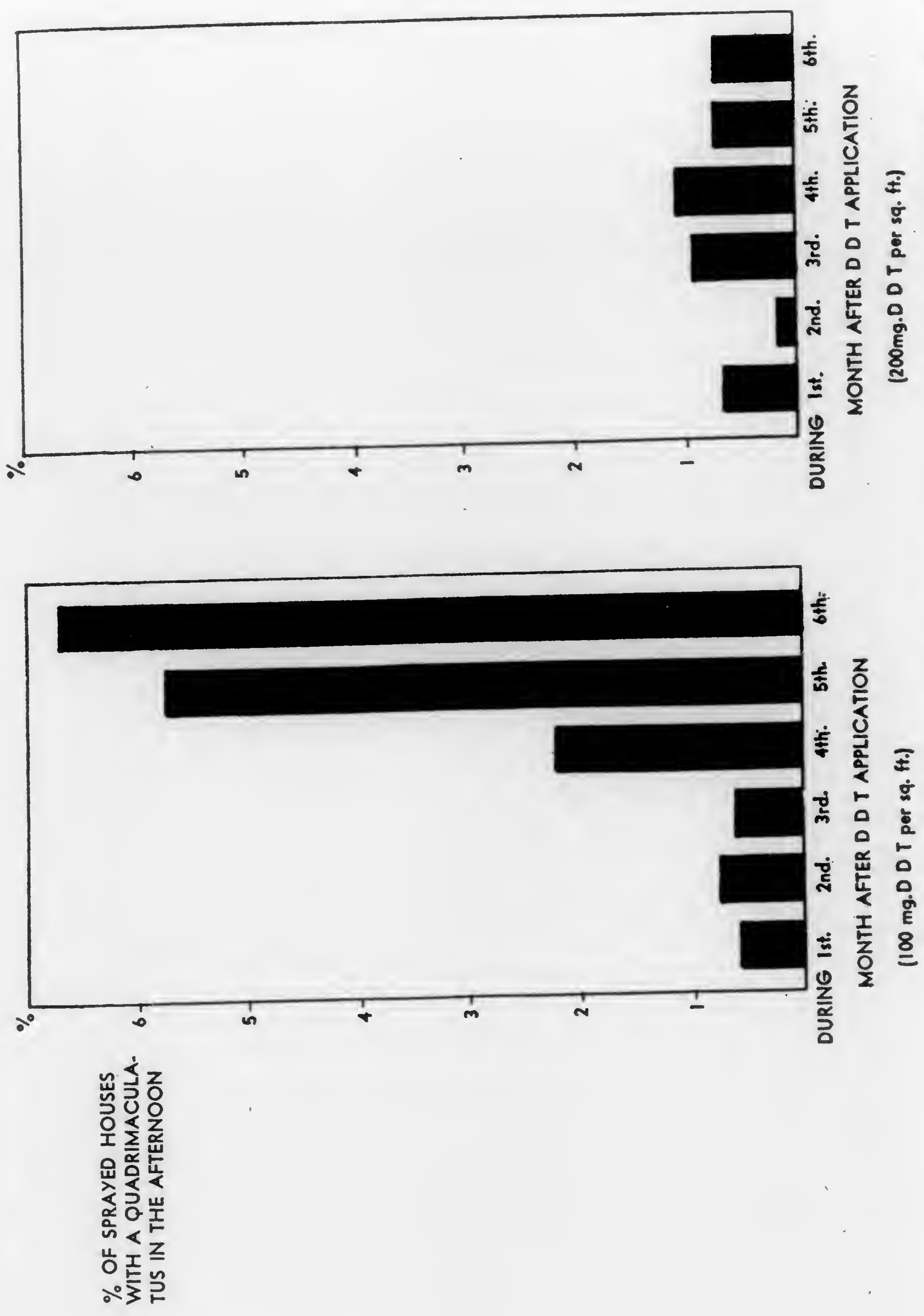

Figure No. 13—Comparison of residual effect of 1945 (100 mg. DDT) and 1946 (200 mg. DDT) house spray program

DDT SPRAY DEMONSTRATIONS

At the request of the Farm Security Agency, Parent Teacher Organizations and several Civic Clubs, a series of demonstrations were given to point out the proper use of household insecticides for the control of the vectors of insect-borne diseases.

From two to five demonstrations were given in the following counties: Escambia, Bay, Okaloosa, Columbia, Baker, Bradford, Union, Lake, Manatee, Hendry and Lee. The most suitable types of spray equipment, proper DDT spray mixtures and the rates of application and the use of available commercial insecticides were discussed and demonstrated very informally to rather large groups of individuals whose interest was very evident, for many attended from distances up to fifty miles.

This phase of Public Health has never been stressed before by this Bureau, but from the enthusiastic response, both in attendance and their letters of appreciation, it is evident that more emphasis should be placed on the proper methods for effective control of insects in the home.

It is the plans of this Bureau to make the services of these demonstrations teams available to the health departments statewide, because it is felt that insecticides have a very definite place in the public health program and that greater emphasis should be placed on this subject in the future.

DRAINAGE AND LARVICIDAL OPERATIONS

Minor Drainage and Larviciding — This phase of activity was carried on in Lake City, Tallahassee and Gainesville. There were 5,407 gallons of Diesel Oil and 970 pounds of Paris Green dust applied to 991 acres of breeding surface. A total of 5,541 linear feet of ditches was dug and 33 miles of ditches were cleaned.

HERBICIDING AND CHOPPING OF WATER HYACINTHS

At Lake City herbiciding operations were carried on in Hamburg and Alligator Lakes. A total of 204 acres of hyacinths was destroyed by using sodium arsenite and "Weedone." Sodium arsenite used at the rate of five pounds to fifty-five gallons of water was applied with a power sprayer mounted in a boat. A small quantity of "Weedone" was used in destroying 60 acres of water hyacinths. Approximately 150 acres of water hyacinths were destroyed in Alligator Lake and 60 acres in Hamburg Lake by using a cutting machine rented from the U. S. Engineers. This method was very effective in deep water, but could not be used effectively close to the shore.

AEDES AEGYPTI CONTROL

The domestic mosquito control program was expanded to several new cities during the year and was set-up on a matching basis. The

TABLE XX—SUMMARY OF WORK ACCOMPLISHED BY DOMESTIC MOSQUITO CONTROL

	Panama City	Pensacola	Gainesville	Tampa	St. Petersburg	Key West	Miami
No. Premises Inspected	4,937	3,054	1,937	25,757	9,326	10,921	206,818
No. Premises Breeding Aedes aegypti	1,329	707	568	5,276	1,726	1,090	8,870
No. Places Where Breeding was corrected	1,327	701	563	5,241	2,320	1,080	—
No. Breeding Containers Eliminated	—	—	—	—	—	—	134,758
Sanitary Surveys Made	1,216	957	1,021	—	—	—	—
No. Catch Basins Sprayed	—	—	9,100	—	—	—	—
No. Gallons Oil Applied to Catch Basins	—	—	2,276	1,265	278	—	—
Cisterns and Wells Inspected	—	—	—	—	—	27,181	—
Cisterns and Wells Fished	—	—	—	—	—	5,308	—
Cisterns and Wells Larvicide Applied	—	—	—	—	—	2,364	—

cities were required to supplement the program on an equal basis of man-power. The program was inaugurated in such a manner that the individuals were assigned to work on domestic mosquito control during the summer months and on general sanitation and typhus control during the winter months. The program was quite successful and a great deal of good was accomplished. In many towns the only mosquito program is the domestic mosquito problem which is confined to receptacle breeding, storm sewer catch basins and polluted ground water areas. (Table XX).

The U. S. Public Health Service through the State Board of Health assigned the following number of men: One man was assigned to Key West, three men to Miami, three to Tampa, one to St. Petersburg, one to Panama City and one to Pensacola.

ENTOMOLOGICAL ACTIVITIES

STATEWIDE MOSQUITO DENSITY SURVEY INSPECTION

In all of Florida's 67 counties anopheline density surveys were conducted in order to learn the distribution and density of the malaria vector. Approximately 24,700 inspections were made averaging more than 350 separate station inspections per county for the season. From these records it is possible to prepare spot maps of the stations indicating the highest *Anopheles quadrimaculatus* densities recorded, making available to county health officers and other interested persons an analysis of the malaria hazard existing anywhere in the State of Florida. These maps will indicate the peak of ''quad'' population during the 1946 season and include similar information from 27 counties surveyed in 1945. Areas where no *A. quadrimaculatus* were found are also indicated. Intensive survey work was done in and around cities, towns and villages as centers of human populations. Rural areas were covered as thoroughly as possible, inspections being made in catch stations usually near farm dwellings. Mosquito counts were also made in areas where no human populations were present to lay the ground work for malaria prevention in the event these areas are settled. Throughout the State the areas of greatest malaria hazard as represented in vector indices are now known. These records can be used as a basis for future malaria control in the areas where a hazard is known to exist.

SURVEY OF FLORIDA MOSQUITOES

In counties of southwest Florida and in the Florida Keys, light trap and special adult and larval collections were made to obtain information on the species present and on species distribution of mosquitoes in that area. The following are records of mosquito species of particular interest that were found to have a wider distribution in the State than heretofore known: *Anopheles quadrimaculatus* — Monroe County (Mainland); *Aedes tortilis* — Palm Beach County; *Anopheles albimanus* — Monroe County (Keys); *Aedes dupreei* — Citrus and Baker Counties; *Aedes sticticus* — Calhoun County; *Aedes canadensis* — Charlotte, and Palm Beach Counties; *Culex apisthopus* — Charlotte, Monroe and Palm Beach Counties; *Culex elevator* — Collier, Monroe, Lee and Manatee Counties; *Mansonia titillans* — St. Lucie, Lake and Indian River Counties; *Megarhinus septentrionalis* — Leon County; *Psorophora pygmaea* — Monroe County.

ANOPHELINE SURVEY OF THE FLORIDA KEYS

During the months of November and December 1946, an intensive survey of the Florida Keys was inaugurated for the purpose of locating suspected breeding areas of *Anopheles albimanus* and to determine the distribution of this species in the Keys area. This anopheline survey has involved 150 larval collections of 565 anopheline larvae; 2,065 culicine larvae were also collected and determined. Light trap collections amounting to 67,550 specimens in 305 separate collections were made throughout the whole length of the Keys. One trap in operation throughout the year on Stock Island collected 33 adult *A. albimanus* during the months of August, September and October.

The 122 *A. albimanus* larvae dipped during November and December on the Keys were as follows:

Number Larvae	Date	Key
6	11/25/46	Stock Island
47	11/26/46	Stock Island
40	11/30/46	Stock Island
20	12/6/46	Stock Island
6	12/13/46	Stock Island
3	12/13/46	Key West

MOSQUITO IDENTIFICATIONS

The laboratory identified 2,365 mosquito collections of all types from 51 counties during the year. This amounted to 280,286 specimens representing 53 species of mosquitoes. *Anopheles quadrimaculatus* formed only a small part of these mosquitoes — 4,000. Of the total, 1,272 light trap collections were made, amounting to 274,526 of the specimens received in the laboratory. Anopheline larvae identified totaled 1,951, of which 541 were *Anopheles quadrimaculatus*.

EVALUATION OF TYPHUS CONTROL

In connection with the evaluation of the typus control program 43,123 ectoparasites were identified in the laboratory. These consisted of 9,826 fleas, 18,320 mites and 14,927 lice. A number of unusual species of mites have been identified from domestic rats in this State. These included *Borinquolaelaps mariposus*, *Cosmolaelaps gurabensis*, *Dermatophagoides crassus*, *Cheyletus arcuatus* and species belonging to the genera *Macrocheles*, *Androlaelaps*, *Atricholaelaps*, *Seiulus*, *Uropoda*, *Caloglyphus*. Only two species of lice have been taken from domestic rats in connection with this program. The most common louse is *Polyplax spinulosa* while the other is an undescribed species of *Hoplopleura*.

Table XXI presents a comparison of monthly variations in percentage reduction of infestations of rats with ectoparasites.

RECORDS OF TRIATOMA BUGS COLLECTED

Since Chagas first demonstrated that a peculiar South American disease (common in children in certain parts of Brazil) is caused by a trypanosome, *Tryponosoma cruzi,* and that the intermediate host is a reduviid bug, *Triatoma megista,* increasing interest has been directed to the study of these insects. Additional records of members of this group, the Triatominae, have been made by State Board of Health employees in the past two years. These are:

Triatoma sanguisuga subspecies *ambigua* (Neiva)

Citrus Co., Lecanto, D. C. Thurman and A. J. Obermuller	8-16-46
Inverness, J. C. Burgess	8-24-46
Inverness, D. C. Thurman and John Lovett	6-6-45
Levy Co., Otter Creek, A. J. Obermuller	9-24-46
Chiefland, A. J. Obermuller	8-28-46
Suwannee Co., Branford, Marvin Braswell	10-7-45
Sumter Co., A. J. Obermuller	9-17-46
Duval Co., Jacksonville, Henry Hansen	5-22-46 & 7-2-46

Triatoma sanguisuga (Le Conte)

Citrus Co., Inverness, D. C. Thurman and John Lovett	5-22-46

Triatoma lectularius (Stal)

Citrus Co., Inverness, D. C. Thurman and John Lovett	6-6-46
Lecanto, D. C. Thurman and A. J. Obermuller	8-16-46
Suwannee Co., Bradford, D. C. Thurman and Marvin Braswell	10-7-45

Triatoma spp. (Nymphal skins)

1 skin, Fairfield, Marion Co., D. C. Thurman, August 1946
1 skin, Hastings, St. Johns Co., D. C. Thurman, October 1944

NEW RECORDS OF CULICOIDES

These small members of the Heleidae, commonly called "sandflies" are known to be the intermediate hosts of filarial worms in tropical Central and South America. In addition to the possibility that they may transmit diseases the biting habits of these insects are extremely annoying. On account of their small size these bloodsucking flies can pass through ordinary mosquito screens.

During this season members of this genus have been identified from the Florida Keys and from Lee, Charlotte, Dade and Collier Counties. A species, apparently a new record for Florida, *Culicoides insignis,* Lutz, was taken at Immokalee (Collier County). *Culicoides furens* was recorded from Pineland (Lee County) and from Big Pine Key in the Florida Keys.

TABLE XXI—SUMMARY OF REDUCTION OF RAT ECTOPARASITE INFESTATION BY THE USE OF DDT DUST—BY MONTHS—1946

	Total Of Rats	Number Examined	% Reduction in Number of Positive Animals in Dusted Areas ***				
Month	ND*	D**	X. cheopis	E. gallinacea	L. hawiiensis	L. bacoti	P. spinulosa
January	18	150	63.00	0	88.00	50.01	40.00
February	32	127	24.40	0	95.98	4.35	60.40
March	15	214	24.64	70.57	70.56	0	0
April	10	122	68.13	70.28	79.51	0	49.00
May	9	113	79.34	36.29	66.15	60.75	51.07
June	27	70	76.52	53.17	88.44	69.99	65.29
July	0	122	—	—	—	—	—
August	31	102	87.14	92.40	83.42	73.95	54.42
September	147	102	85.76	75.98	65.81	60.24	51.15
October	81	115	74.68	64.84	45.94	22.52	56.49
November	33	117	72.88	90.64	52.27	71.80	67.95
December	18	51	0	100.00	26.47	0	51.47
TOTAL	421	1,405					
% Reducation For The Year			66.92	33.97	90.00	24.41	37.22

* ND - Area Not Dusted
** D - Area Dusted
*** When one parasite was found the rat was considered Positive for that species.

MALARIA RESEARCH

MARK F. BOYD, M.D., Director

This constitutes the final report from the Station For Malaria Research, Tallahassee, as the International Health Division of the Rockefeller Foundation discontinued this project with the retirement of Dr. Mark F. Boyd from the staff of the division, December 31, 1946.

PERSONNEL

Dr. J. H. Paul was withdrawn on January 31 for reassignment by the Home Office.

Dr. S. F. Kitchen was withdrawn on July 25 for reassignment by the Home Office.

Dr. Rafael Coello began duties on the malaria therapy service at the Florida State Hospital, as resident physician, on April 15.

Miss Pauline Chason resigned as technician as of February 15. Miss Eva Haynes entered training as her successor on January 21.

With the exception of Mrs. R. H. Witchard and Miss Lucile Logan, all members of the staff were honorably dismissed on November 30 with a month of separation pay. Funds have been provided to retain the services of Mrs. Witchard throughout 1947 and Miss Logan until June 30, 1947, for the final analysis of various data.

MALARIA THERAPY SERVICE IN THE FLORIDA STATE HOSPITAL

From the time of the departure of Dr. J. H. Paul until the first of May, this service was in the care of Dr. Kitchen; and from that date until the 1st of December, it was the responsibility of Dr. Rafael Coello who was in residence at the hospital.

A summary of information obtained on parasite inoculations made during this period by the Malaria Therapy Service for the Florida State Hospital appears in the following table XXIa.

The McCoy strain of *P. vivax* was propagated through human-anopheline passages 91-96 inclusive. The south Pacific strains known as Steyers "A", "C", and "D", as well as the Burma strain were discontinued during the year. The Costa strain of *P. falciparum* was carried through human-anopheline passages 8 to 12 inclusive since the last break in passage. The Jones and Trinidad strains of *P. malariae* were maintained by blood inoculation.

INSECTARIES

The epizootic in the insectary colony of *A. quadrimaculatus*, which occurred in 1945, continued with wide fluctuations. At periods when most severe, pupal production was embarrassingly restricted. Microscopic studies made by Dr. Eusebio Garcia failed to reveal any detectable parasite, and Dr. Kudo was of the opinion that Microsporidia were not involved. Since the onset of this difficulty, it was necessary to maintain rearing on a scale far greater than previously required in order to compensate for the heavy mortality.

Although observations on the infected larvae were inadequate to exclude the possibility that an infections agent may have been responsible, there remained the impression that during the extended period in which the colony was maintained it was progressively necessary, even before the beginning of the epizootic mentioned, to increase the rearing facilities in order to secure adults in adequate numbers. This suggests that, perhaps due to the protracted inbreeding, the colony was undergoing a progressive deterioration in vitality.

With the close of the station in December, rearing was terminated and the colony allowed to die.

INSTRUCTION

Miss Logan gave six two-hour laboratory periods from April 1 to 12 inclusive for a class of 11 FSCW parasitology students; and a lecture was given to the class by Dr. M. F. Boyd on April 11. A further group of six students received five two-hour laboratory periods from November 4 to 8 inclusive.

In addition the following persons were present as students for varying periods:

Mr. Hernan Zuniga, El Salvador, Institute of Inter-American Affairs
Dr. Francisco J. Cambournac, Portugal
Dr. Shao Chow Kuo, Nat'l Central University, Chengtu, China
Dr. Dudley Hargrave, IHD fellow
Dr. Fernando Bustamente, D. S. P., Brazil
Mr. Theodore Bachman, prospective medical student
Dr. W. S. Gilchrist, Medical Missionary, Angola
Pfc. Paul R. Tait, Oliver General Hospital
Dr. Eusebio Y. Garcia, Philippine Islands
Dr. John Hadjinicolou, Greece, IHD fellow
Mr. T. Ramachandra Rao, India, IHD fellow
Dr. John Sphangos, Greece, IHD fellow
Mr. Henry Merubia, Bolivia, IHD fellow
Dr. L. A. Rodriguez, Venezuela
Dr. E. Gonzales, Venezuela
Dr. J. J. Perez, Venezuela
Dr. L. Guerraro, Venezuela
Dr. Lassman, Mexico, IHD grant
Miss Madeline Pierce, Florida State Hospital

COMPLETED STUDIES AND PAPERS:

121. Persis Putnam, Mark F. Boyd and Pauline A. Mead: Periodic or cyclically recurring phenomena of vivax malaria infections.
    I. Cycles of the parasitemia;
    II. Rhythmical occurrence of remissions and recrudesences.

122. Mark F. Boyd and S. F. Kitchen: An attempt at active immunization with *Plasmodium vivax* killed *in vivo*. Am. J. Trop. Med., *26* (1946).

123. Mark F. Boyd: A review of studies on immunity to vivax malaria. Presidential Address, National Malaria Society, Miami, Fla., November, 1946. To appear in the Journal of the National Malaria Society, and also contributed by invitation to the centennial issue of the Journal of the Iowa State Medical Society, October, 1946.

TABLE XXIa

SUMMARY OF MALARIA PARASITE INOCULATIONS AT FLORIDA STATE HOSPITAL—1946

Class Inoculation	Status of patient with corresponding species of parasite	Parasites Employed								
		P. vivax			P. falciparum			P. malariae		
		Takes	Failures	Pending	Takes	Failures	Pending	Takes	Failure	Pending
Natural (Sporozoites)	Primary	27		4	18	1				
	Reinoculation after previous failure									
	Reinoculation after previous take	2								2
Artificial (Trophozoites)	Primary	4	3		1			17		
	Reinoculation after previous failure	1	2					2	2	
	Reinoculation after previous take	12	9							

NUTRITION INVESTIGATION AND SERVICES

WALTER WILKINS, M.D., Ph.D., Director

On January 6, 1946, the State Board of Health in regular session authorized the organization of Nutrition Investigations and Services, and the director was appointed at that time. In connection with this new unit, it is of interest to mention that Florida is the first State in the United States to set up this service. The purpose of the unit is primarily investigative in character but includes educational, demonstration, and consultation services.

On February 1, a junior chemist was employed and a secretary was assigned to the unit on February 25. During February a mobile trailer laboratory was purchased and equipped with laboratory facilities. With shortages of personnel trained in this particular type of work, it was possible to make temporary appointments extending for only a few months of a senior chemist, two laboratory technicians, a statistician, and a typist. In June a nurse was assigned to the staff on a permanent basis, and in September two nutritionists and a junior parasitologist were employed on a permanent basis also. One nutritionist, however, was assigned to Bureau of Maternal Child Health, and her activities are included in the report of that Bureau.

In the face of personnel shortages coupled with the fact that this unit was still in the process of being organized, it was possible to do only preliminary studies during the spring of 1946. At the end of the year space was still a major problem which prevented the establishment of a nutrition laboratory.

To assist financially in carrying on this work, grants were made as follows:

Milbank Memorial Fund	$15,000
Williams-Waterman Fund for the Combat of Dietary Diseases	5,000
Nutrition Foundation, Inc.	2,500
Value of materials donated (from other sources)	6,100

ANEMIA

The anemia problem in the Southeast has many angles and apparent relationships with other problems such as hookworm disease, malaria, eating habits, nutrient content of food consumed, soil conditions, economic status, climate, etc. Preliminary studies are directed at throwing more light on its etiology.

HEMOGLOBIN DETERMINATIONS

The first step was to adopt a method for making hemoglobin determinations rapidly on large groups. A method was worked out for doing 200 or more tests per school day and was published in the September 1946 issue of the Journal of School Health under the title “RAPID HEMOGLOBIN DETERMINATIONS ON SCHOOL CHILDREN”. A wide range in hemoglobin levels was found in certain areas of the State, varying from 3.1 grams to 17.2 grams per 100 cc of whole blood. After the first check groups of children were put on therapeutic tests. On comparing the hemoglobin levels of the different groups before and after the period of therapeutic testing some rather disconcerting trends were noted. Some of the controls showed an appreciable increase in hemoglobin levels while some of those receiving iron showed apparent decreases. The figures strongly suggested that some unknown factors were involved. Every conceivable factor was considered. The method itself was checked and rechecked for range of accuracy and for possible soures of error. On careful study of the conditions under which the “before” and “after” tests were done, one trend was noted which upon further study was sufficient to explain most of the discrepancies. This trend was for tests done in the morning to show a higher average than those done in the afternoon. On the basis of this observation, a group of children was tested in the morning and afternoon of the same day and the majority of these children showed appreciably higher hemoglobin levels in the morning as compared with the afternoon. On applying these observations to the discrepancies noted in the tested and control groups it was noted that most of the control children who showed an increase in hemoglobin had received their “before” test in the afternoon and their “after”’ test in the morning. Many of the children in the tested group who showed a decrease had had their tests in the reverse order. These findings suggested very strongly that there was a diurnal variation in the blood hemoglobin level.

After many tests during the course of the year an article was published in the Milbank Memorial Fund Quarterly, October 1946, on “PRELIMINARY OBSERVATIONS ON DIURNAL AND OTHER VARIATIONS IN HEMOGLOBIN LEVELS”. After doing the preliminary blood work in the spring, more and better apparatus was obtained for doing such work. This work has been almost entirely with school children.

During the year 15,554 hemoglobin tests were done on school children, teachers, and college students in 7 counties. In connection with these tests 2,512 physical inspections were done on school children directed at detection of presumptive signs of malnutrition.

HOOKWORM TESTS IN CONNECTION WITH ANEMIA STUDIES

There was some delay in getting hookworm tests completed since the State laboratory could handle only a limited number each day.

Also it was felt that the hookworm tests should be quantitated to some extent in order that the degree of infestation of each child be known. This was done by the laboratory and the hookworm reports were labeled negative, very light, light, moderate, and heavy. It was felt that the old qualitative test would be almost worthless for the purpose of this study.

One family of 5 children showing heavy infestation with hookworm was chosen for special study. Three of these children were in school and two were of preschool age. The three in school showed hemoglobin levels of 4.3, 4.6, and 6.5 grams respectively. The local Parent-Teacher Association made it possible to supplement the diets of these three children for a period of two months. The three school children showed marked increases in hemoglobin levels by the end of the first month at which time they were treated for hookworm. The hemoglobin values had increased to 8.9, 10.6, and 10.2 grams respectively at the end of the one month period. This represented an average increase of 94 percent. The diet supplement was continued for another month at which time the school was closed. The increase in hemoglobin level during the second month was far less marked than during the first month which was to be expected. The two children who were of preschool age, and who were not given supplementary feeding, showed no change in hemoglobin level during the two month period. The findings on these children suggest very strongly that inadequate diets may play an important role in producing the signs and symptoms usually associated with hookworm disease.

The director and the junior chemist gave reports on the Florida studies at the joint meeting of the American Public Health Association and the American School Health Association at Cleveland in November 1946. The director was elected president of the American School Health Association for 1946-47 and the junior chemist was made chairman of the Florida Membership Committee.

At the Annual Conference of the Milbank Memorial Fund in New York in October, the director presented a paper on “New Types of Activity for Nutrition Services in Public Health”.

At the December meeting 1946 of the Food and Nutrition Board of the National Research Council, the director was made Chairman of a Committee on Nutrition Programs for State Health Departments. The junior chemist was appointed member of this committee. At present the Committee is preparing a nutrition manual for use by public health workers in the United States and Canada.

During the year members of the staff participated in 57 meetings of medical societies, health associations, teacher groups, pupil groups, parent-teacher associations, and college classes.

BUREAU OF SANITARY ENGINEERING

D. B. LEE, M.S. (Eng)., Director

This condensed report covers the more salient features of the program of activity of the Bureau of Sanitary Engineering. Certain phases of work were again restricted during the year. This is a reflection of the continued need of additional personnel for the purpose. It should be mentioned here, however, that this first full year following the recent war saw some alleviation of this situation inasmuch as several workers of the bureau returned from military duty and rejoined those few who were still with the organization. This fact, coupled with prospects of additions which might be made during the ensuing biennium, should place the State Board of Health in position to more nearly fulfill its responsibility in the public health engineering field.

PUBLIC WATER SUPPLY AND TREATMENT

NEW AND PROPOSED CONSTRUCTION

The following list (Table XXII) of public water supply projects, proposed for construction in Florida as post-war improvements, received review and approval by the Bureau of Sanitary Engineering in 1946 insofar as plans and specifications were involved. It will be observed that the type of improvements varied from the construction of complete water treatment plants and distribution systems for some communities to plant and/or distribution system extensions or improvements to other municipalities already having water treatment plants. The estimated cost value of these post-war projects exceeds $6,000,000., which gives a direct indication of the desire of communities to deliver a potable, chemically adjusted water to consumers.

TABLE XXII—PUBLIC WATER SUPPLY PROJECTS IN 1946

Municipality	Project	Est. Cost
Fort Lauderdale	Extensions to Water System	
High Springs	Water Supply Well	3,200
Jacksonville	Dist. System near Dame's Point	5,000
DeLand	Distribution System Extensions	112,800
Fort Lauderdale	Distribution System Extensions	
South Jacksonville (Springdale)	Water Supply Well	3,900
Fort Lauderdale	Distribution System Extensions	
Venice	Water Works Improvements	250,000
Fort Lauderdale	Water Main Extensions	
Fort Myers	Water Supply	297,500
New Smyrna Beach	Water Treatment Plant	203,000
St. Augustine	Water Plant Extensions	60,660
Miami	Water Plant Improvements	667,200
Ft. Lauderdale	Water Plant Improvements	
Ft. Lauderdale	⅛ MG Elevated Tank	
Ft. Lauderdale	1 MG Elevated Tank	
Sarasota	Water Works Improvements	
Jacksonville (Lakewood Subd.)	Water Supply (Unit No. 1)	35,000
Jacksonville (Southside Estates)	Water Supply Facilities	150,000
Jacksonville Beach	Water Supply & Dist. System Exts.	175,000
Tallahassee	Water Plant & Dist. System Exts.	92,000
Miami	36-inch and 42-inch Main Extensions	825,000
Pampano	Water Works Improvements	20,000
Tampa	Water Plant Additions	686,000
Ormond	Water Plant Additions	48,000
South Bay	New Water Facilities	
Dania	Water Works Improvements	200,000
Indian Rocks	Water Main Extensions	46,300
Jacksonville (Ridgeland Gardens Subd.)	Water Supply System	4,000
New Smyrna Beach	Water Supply Line	20,000
Starke	Elevated Tank	45,000
Wauchula	Water Works Improvements	75,000
Bradenton	Water Works Improvements	850,000
Jacksonville (Lake Forest Subd.)	Water Distribution System Improvements	2,500
Pinellas County Water System	Impounded Area Dam	104,450
North Miami	Water Treatment Plant	75,000
Bal Harbor	Water Supply & Distribution System	
Milton	Water Works Improvements	110,000
Gainesville	Water Treatment Plant	409,000
Hallandale	Water System	500,000
Jacksonville (Ortega Forest Subd.)	Water System	10,000
Jacksonville (Lake Forest Subd.)	Water System Improvements	6,000
Plant City	Distribution System Improvements	65,600
Fort Lauderdale	Water Works Extensions	
Jacksonville (Ortega Co.)	Water Works Additions	12,000
Jacksonville (Bishop Homes Subd.)	Water Supply and Distribution	1,500
Miami (Miami Park)	Water Plant	15,000
Jacksonville (Carvill Park)	Water System Mains	7,000
Lake Placid (Highland Park)	Water Mains	5,200
Holly Hill	Extensions to Water Systems	76,810
Pahokee	Water Works Improvements	225,000

OPERATION

In addition to review and approval of proposed new construction of public water supply improvements with respect to functional design, the activity of the bureau in the public water supply field continued on sanitary control of the operational phase. Sanitary supervision of operation, however, was confined principally to emergency investigation and corrective action, only a few routine visits to water supply systems being possible during the year under present personnel limitations.

Quality of operation of public water supplies was again enhanced in 1946 through the program of instruction included in the water and sewage treatment conference and short course held at the University by its General Extension Division. The bureau personnel detailed on this work actively functioned in treatment, maintenance and laboratory instruction to the sixty nine operators attending.

With the establishment of district health departments and the assigning of an engineer in each of two of such districts, a more satisfactory coverage has been effected during the year insofar as concerns public water systems located in the two areas. Although the coverage was not complete nor sufficient, the activity of the two district engineers during the year has developed information which bears out the urgent need for much closer sanitary supervision of public water supplies.

WASTES TREATMENT AND DISPOSAL

SEWAGE

During the year a number of communities availed themselves of federal planning money advanced through the Federal Works Agency. Sewage collection and treatment have not kept pace in Florida with water supply development and communities are becoming increasingly aware of this situation. During the year thirty-four sewerage projects whose estimated cost approximated $11,000,000 were reviewed and approved from functional standpoint. Many of these projects involved detailed cooperation with consulting engineers to eliminate undesirable design features resulting from efforts to reduce construction costs. Table XXIII presents data concerning the nature of the projects. The bureau policy continued to be that of disapproving large sewer extensions in the absence of adequate treatment facilities.

Design of high-capacity trickling filter plants was resorted to increasingly to cope with widely fluctuating population loadings, a major Florida problem in sewage treatment and disposal. At the year's end a number of additional preliminary proposals had been reviewed and approved.

High construction costs and the limited availability of materials were dominant factors in delaying construction during the year. Generally speaking, municipalities found it difficult to obtain reasonable bids because of apprehension on the part of contractors as to future trends. However, toward the year's end a definite stabilizing was noticed.

In spite of adverse economic conditions, construction was begun, and in some instances completed, on nearly $450,000 of sewage collection and treatment facilities, involving nine projects.

Plant maintenance and operation continued to be a major weakness in the bureau program because of lack of personnel. Encouraging tendencies were observed on the part of municipalities to look to this office for guidance on plant design and operation. Interest developed in the Pensacola, Tallahassee and Lake Worth areas regarding sanitary district formation and administration. In order to implement creation of such agencies, it is the intention of the bureau to promote presentation of state-wide enabling legislation to the State legislature.

At the instigation of the bureau modern sewage treatment facilities to serve the University of Florida were planned and construction started. These units will protect underground sources of nearby public water supplies. In addition, it is anticipated that the plants will be of material aid in connection with engineering instruction at the University.

TABLE XXIII—SANITARY SEWERAGE PROJECTS APPROVED IN '946

Municipality	Project	Estimated Cost
Fort Lauderdale	Sewer Extensions — new development	$ 37,000
Plymouth	Sewer Extensions	2,900
Jacksonville	Treatment Plant for GM Service Shops	5,000
Gainesville	Treatment Plant for Veterans Housing Group	41,000
Macclenny	Sewer Extensions and Treatment Plant	90,450
Fort Lauderdale	Sewer Extensions — new development	4,900
New Smyrna Beach	Sewer Extensions and Treatment Plant	345,000
Fort Pierce	Sewer Extensions	200,000
Tallahassee	Sewer Extensions and Treatment Plant	682,000
Pensacola	Treatment Plant at Naval Air Station	320,000
Bal Harbor	Sanitary Sewers and Pump Station	75,000
Miami Beach	Allison Island Sewerage	8,500
Panama City	Sewer Extensions and Treatment Plant	2,000,000
Pensacola	Sewer Extensions	49,000
Gainesville	Treatment Plant for University of Florida	282,000
Jacksonville (Roosevelt Gardens)	Sewers	10,300
Ocala	Sewage Treatment Plant	290,000
Cocoa	Sewer Extensions and Treatment Plant	55,000
Chipley	Sewer Extensions and Additions to Plant	40,000
Gainesville	Sewer Extensions	5,700
DeLand	Sewage Treatment Plant	435,000
Auburndale	Treatment Plant for Industrial Group	15,000
Fort Pierce	Sewer Extensions and Treatment Plant	600,000
Pensacola	Sewer Extensions	26,000
Tarpon Springs	Sewer Extensions and Treatment Plant	175,000
Sanford	Sewage Treatment Plant	196,000
Sanford	Sewerage	380,000
Pahokee	Sewage Collection System	250,000
Auburndale	Treatment Plant for Industrial Group	18,000
Jacksonville (Country Club Estates)	Sewers	65,000
Fort Pierce	Sanitary Sewers	750,000
Miami	Sewers in new development	10,000
Orlando	Sewer Extensions and Treatment Plant	3,700,000
Jacksonville (Murray School Subdivision)	Sewers	8,500
	Total Estimated Cost	$11,182,250

INDUSTRIAL WASTES AND STREAM POLLUTION

Stream pollution studies were limited during the year due to personnel and laboratory restrictions. With the assistance of the Office of District No. 4, U. S. Public Health Service, detailed bacteriological and sanitary surveys were completed of waters contiguous to the City of Pensacola. Valuable data were obtained regarding the sources and magnitude of pollution in the area studied.

Extensive field work was completed jointly with Jacksonville City

Engineer's Office on a study of St. Johns River conditions in the Jacksonville area and the data derived are being analyzed.

After a study of Halifax River conditions in the vicinity of Daytona Beach, the area condemned for the taking of shellfish was extended.

Considerable hydrographic information was obtained through cooperative agreement with the Surface Water Division of the U. S. Geological Survey. These data were valuable in connection with the review of sewage and trade waste treatment projects.

Continued expansion of the citrus industry resulted in aggravation of that phase of pollution of the State's surface and subsurface waters. Further industrial activity and expansion emphasized pollution problems regarding operation of tanneries, milk plants, fruit and vegetable processing installations, laundries, paper mills, meat slaughtering and packing plants and phosphate mining.

Information obtained by study of conditions existing in the Alafia River as a result of phosphate ore mining operations led to establishment of a $19,000 fellowship at the University of Florida Engineering and Industrial Experiment Station to develop practicable means for eliminating or minimnzing stream pollution occurring from such mining operations.

Following location of a kraft paper mill in Putnam County near Palatka, and anticipating a waste disposal problem of real magnitude, the bureau ascertained company proposals in this respect. Mill wastes will be discharged to Rice Creek and ultimately to St. Johns River after processing by modern save-alls. It is anticipated that operation of this and other paper mills will be a major future problem.

Several laundry waste treatment plants utilizing fill-and-draw coagulation units were approved during the year.

Late in the year, a mobile field laboratory was acquired for use in connection with stream pollution investigations. This unit will enable the bureau to obtain badly needed field data concerning specific pollution problems.

DRAINAGE WELLS

Continued pressure was exerted on the bureau during the year to permit utilization of drainage wells for disposal of storm water, trade wastes and condenser cooling water from air-conditioning and ice plant installations. This was particularly true of urban areas which experienced rapid development without concurrent extension of sewerage. Areas were encouraged to begin immediate planning for adequate systems. Temporary permits were issued for 31 such wells where public health implications were neglible. The bureau policy continued to be that of regarding drainage wells as an expediency and permitting them only after thorough field investigation and in no case without adequate pretreatment of material discharged to the well. An increasing appreciation by lay citizens of the public health aspects of this method of wastes disposal was noted.

CIVILIAN PUBLIC SERVICE SANITATION PROJECTS

The Civilian Public Service Sanitation Program, under technical supervision of the bureau of sanitary engineerng, which originated under the Selective Service Act as a program of constructive work for religious objectors, came to an end in 1946 with the closing of all camps originally established in Florida. The accomplishments of personnel of these camps were many and varied and added much to the development of rural sanitation progress in this State.

COMMON CARRIER WATER SUPPLY AND WATERING POINT SANITATION

Each year the U. S. Public Health Service circularizes common carrier companies on or about December 1 for list of watering points to be used by them during the next calendar year. About March 1 this list is completed and forwarded to the Bureau of Sanitary Engineering for investigation and recommendation of certification. Continuing the cooperative effort with the U. S. Public Health Servce, District No. 4, New Orleans, in common carrier water supply and watering point sanitation, the bureau's activity in this feature of its program is reflected concisely in the following tabulaton.

TABLE XXIV

Common Carrier Water Supply and Watering Point Inspections and Recommendations For Certification to U. S. Public Health Service

USPHS Form No.	No. of Inspections Made	Railroad Companies		Air Lines		Vessel Companies	
		Approved	Provisional	Approved	Provisional	Approved	Provisional
8921-E Water Supply Examination	58	35	5	6	4	12	4
8921-O Watering Point Sanitation	107	50	5	12	6	30	4

All field investigations of water supplies and watering points are based on the following criteria:

Public Health Service Drinking Water Standards 1946
Sanitation Manual for Land and Air Conveyances
Applicable State laws and regulations.

SANITARY MILK CONTROL

Definite forward steps were made in 1946 in the promotion and control of the production, processing and the distribution of grade "A" quality milk. Milk control programs have been appraised and are now an activity of forty organized city and county units. Complete milk sanitation compliance rating surveys were completed in eight counties and cities. Only Dade County and Miami rated in the Honor Roll group having a compliance rating over 90%.

The unification and standardization of milk control was advanced by agreements with the Florida State Department of Agriculture and revision of the Florida State Sanitary Code.

Nine of the thirteen high-temperature short-time pasteurizers in the State were thoroughly checked during the year. Eight communities were added to the list having compulsory pasteurization ordinances making a total of fifteen. An entire issue of the Florida Health Notes for July, 1946, was written devoted entirely to pasteurized milk. New milk producing areas are developing in Chipley, Marianna, Moore Haven and Belle Glade regions.

A booklet on plans and layouts was written during the year. A statistical table showed that 75 per cent of the urban population live in communities in which over 90 per cent of the milk is pasteurized. Fraudulent sales of recombined fluid milk have been practically eliminated, and standards established for shipped-in fluid milk to be labeled as "UNGRADED."

The investigation of an unusually large number of undulant fever cases in one community was handicapped by the lack of a full time organized health department in the county. Commercial milk was apparently not implicated in the cases.

Over 1,200 milk samples were analyzed and the results reported to the central office. Nearly 60 per cent of the pasteurized milk samples was satisfactory, and only 40 per cent of the raw milk samples was satisfactory.

A satistical summary of activities is given in TableXXV.

TABLE XXV

Sanitary Milk Control
Summary of Activities

Description	Number	Per Centage
Plant Producer Inspections	116	
Producer Distributor Inspections	71	
Pasteurization Plant Inspections	123	
Institutions and Private School Supplies Inspected	17	
Pasteurization Plants Approved for Interstate Carriers	11	
Pasteurization Plant Plans Reviewed	10	
Pasteurization Plants or Supplies Closed	2	
Attendance at Talks and Lectures	350	
Milk Sanitation Compliance Rating Surveys	8	
Total Milk Sample Analyses Reported	1,224	
Number and Per Cent Satisfactory	675	55%
Pasteurized Milk Samples Analyzed	400	
Number and Per Cent Satisfactory	236	59%
Retail Raw Milk Samples Analyzed	361	
Number and Per Cent Satisfactory	145	40%

SEAFOOD SANITATION

(Shellfish and Crustacea,)

TABLE XXVI

Inspections:

Type of Plant	No. Plants Certified During 1945-1946 Season	No. Plants Certified During 1946-1947 Season	REMARKS
Oyster Shucking & Packing	49	69	Forty-two interstate shippers inspected monthly. Twenty-seven local plants inspected 6 times/season.
Oyster Shellstock Only	9	17	Inspected average 6 times/season.
Scallop Shucking and Packing	14	23	Inspected monthly during summer.
Clam Shucking & Packing	5	3	Inspected average 6 times annually.
Crabmeat Picking and Packing	30	31	Inspected average 8 times anually.
Lobster Picking and Packing	2	2	Inspected average of 3 times during season, which is relatively short.
Shrimp Cooking and Packing	0	1	Inspected monthly during processing season.

Construction and Additions:

Type of Plant	No. New Plants Constructed	Additions to Existing Plants	REMARKS
Oyster Shucking and Packing	15	6	Included is a new 10-bench shucking plant at Apalachicola, outstanding in construction, equipment as well as from standpoint of good housekeeping. Also at Applachicola, a new crabmeat plant, 50 pickers, was constructed, and equipment includes stainless steel tables, running-water flumes and track-and-car conveyor system. Other improvements such as relaying concrete floors, metal covering of picking and washing tables, were made at existing plants.
Oyster Shellstock only	8		
Crabmeat Picking and Packing	3	1	

Evident improvement in construction, equipment and operation of seafood plants has taken place during the year, considering shortages of funds and personnel needed to effect more adequate sanitary supervision of the industry. Complicating sanitation of seafood industry has been the labor shortage and the low-price market. Some possible lack of sanitation has been reflected in lawsuits involving four crabmeat plants shipping their product in interstate traffic, which action has been instigated by the Federal Pure Food and Drug Administration. These circumstances in turn reflect the need for better laboratory control of crabmeat processing, as well as shellfish handling, from a sanitary standpoint; and serve to reiterate recommendations pertaining to this need which have already been made.

WATER IMPOUNDMENTS AND MOSQUITO CONTROL

Construction of water impoundments during 1946 approximated this activity for the previous year. During the year ten permits for these projects were issued by the bureau. These were in northwest

Florida counties and principally were for irrigation and recreation purposes. Investigatory work incident to water impounding projects was performed cooperatively with Bureau of Malaria Control. Further investigations, from the standpoint of Florida State Sanitary Code requirements, pertaining to a proposed impoundment by the U. S. Engineer Department on the Apalachicola River were made.

TYPHUS AND RODENT CONTROL

The typhus and Rodent Control measures were conducted on the same basis in 1946 as during the previous year.

The State Board of Health has not as yet made an allotment of funds to conduct this activity. However, the Public Health Service, through the Communicable Disease Center in Atlanta, supplied an officer experienced in this work and also made an allotment of funds to assist the various localities in financing the program. Work was carried on as activities of the local health departments in six counties, namely: Dade, Escambia, Hillsborough, Pinellas, Polk, and in the City of Jacksonville in Duval County.

EXPERIMENTAL DUSTING WITH DDT

Dusting of rat runs and places frequented by rats with 10% DDT powder was carried out in seven cities in five counties for the purpose of determining the effectiveness of this method in controlling the ectoparasites on rats. Areas to be dusted were selected and previous to starting the dusting operation, live rats were trapped, combed and thoroughly searched for ectoparasites and blood sera collected to be run in the Complement Fixation Test by the Virus Laboratory of the U. S. Public Health Service in Montgomery, Alabama. The purpose of these operations was to secure a flea index and gain an idea of the percentage of rats positive for typhus before the work started so that the effectiveness of the DDT could be fairly accurately measured. The extent of control was ascertained through the trapping of rats at thirty day intervals after the dust was distributed. Good results were achieved in the control of the rat-flea and particularly of the Cheopis flea which is thought to be the principal vector in transmitting typhus from the rat to human beings, and to a lesser degree in the control of the other ectoparasites such as mites and lice.

At the start of the program in the latter part of 1945, and the early part of 1946 the average flea index was about twelve per rat and the percentage of rats postive for typhus as determined from blood sera run in the Complement Fixation Test was approximately 75%. The figures for the composite sampling of the six projects in eight cities reveal that through one dusting the average flea index can be reduced from twelve to below one flea per rat, or about a 95% reduction. Reduction in the other ectoparasites was considerably less averaging around 40%. The aim of this experimental work is to determine whether by holding all the ectoparasites and particularly the Cheopis fleas on the rats to a very low number the typhus infection in the rats would be reduced and eventually the oncoming generations of rats would be practically free of typhus infection. Likewise, since the rat is the reservoir of infection and the Cheopis flea is thought to be the principal vector, whether this method would ultimately be effective in controlling endemic typhus fever in humans must still be shown. The projects have not been in operation for a sufficient length of time to warrant drawing any conclusions as to the reliance which could be placed on this method of control for preventing typhus fever among humans. However, the data collected to date indicate the dusting procedure may have influenced the percentage of rats positive for typhus.

During the year the rats trapped in a dusted area four to six months after it has been dusted show a lower percentage positive for typhus than before the area was treated. If this cycle can be continued for a long enough time, it would seem it would be instrumental in markedly lowering the typhus infection among rats.

With the limited amount of funds available it was possible to conduct projects in only a few of the counties in the State during the year. Consequently those areas in which human cases of typhus had been reported or areas which seemed to be foci of infection were selected. Dusting was repeated at three-month intervals in most instances. The turnover in personnel was frequent and it was possible to maintain this schedule on all of the projects and a few of the areas received only two applications of dust during the calendar year 1946. In later cases the reduction in the number of ectoparasites was not nearly as marked as in those areas where dusting was done on the three-month schedule.

Table XXVII gives a fairly clear idea of the extent and character of the investigative work done in connection with the dusting operations. It will be noted this Table shows the findings before and after the DDT dust was distributed.

In Fig. 14 is shown graphically the average number of Cheopis fleas per rat in the dusted and undusted areas. The figures for Pre-dusting and Control Areas were combined. No rats were trapped in the undusted area during the month of July 1946.

Beginning August 1, 1946, Control Areas located at least five blocks distant from the perimeter of the dusting areas were selected to ascertain the difference in the number of ectoparasites and the percentage of positive rats in the dusted and undusted areas. The information collected in this manner has been valuable in appraising the effectiveness of the dusting operations.

RAT-PROOFING AND OTHER CONTROL ACTIVITIES

Organized rat-proofing programs were in operation in the City of Jacksonville, Pensacola, Tampa, Bartow and some work was done in Miami. These were all conducted as part of the program of the health department concerned.

A complete resurvey was made of all buildings which had been rat-proofed in Tampa since September, 1943, and all "leaks" which

TABLE XXVII
RECORD OF ECTOPARASITES AND BLOOD SPECIMENS — DDT DUSTING PROGRAM — CALENDAR YEAR 1946

TOTALS FOR CALENDAR YEAR 1946	PRE-DUSTING	POST-DUSTING	CONTROL AREAS
Total Rats Trapped	253	1,623	259
Total Rats Dead When Found	60	203	37
Total Rats Trapped Alive	193	1,420	222
Total Rats Combed	193	1,403	222
Total Rats on Which Ectoparasites were found	171	785	194
Total No. Ectoparasites recovered	8,832	22,257	11,499
Total Rats on Which No Ectoparasites were found	22	618	28
Total Rats Combed Ectoparasites not received by Bureau of Entomology	1	10	0
Average No. Ectoparasites all kinds per rat	45.76	15.86	51.80
Total No. Fleas Recovered all kinds	3,789	4,597	1,383
Average No. Fleas per rat all kinds	19.63	3.28	6.23
Total No. X Cheopis Fleas Recovered	* 2,551	1,240	
Average No. X Cheopis Per Rat Combed	* 6.15	.884	
Total No. Ectoparasites other than fleas	5,043	17,660	10,116
Average No. Ectoparasites other than fleas	26.12	12.59	45.57
Number of rats from which blood specimens secured	169	1,067	204
Number Sera Positive	51 or 34.69%	322 or 34.40%	83 or 44.86%
Number Sera Negative	96 or 65.31%	614 or 65.60%	102 or 55.14%
Number Sera Anti-Complementary	6	59	15
Number Sera Quantity Ins.	6	33	4
Number Sera Broken	10	39	0

Total No. Live Rats Trapped	1,835
Total No. Live Rats Bled	1,440
Per Cent of Live Rats Bled	78.47%
No. Rats Combed	1,818

*Rats from Control Area included in Pre-Dusting Column

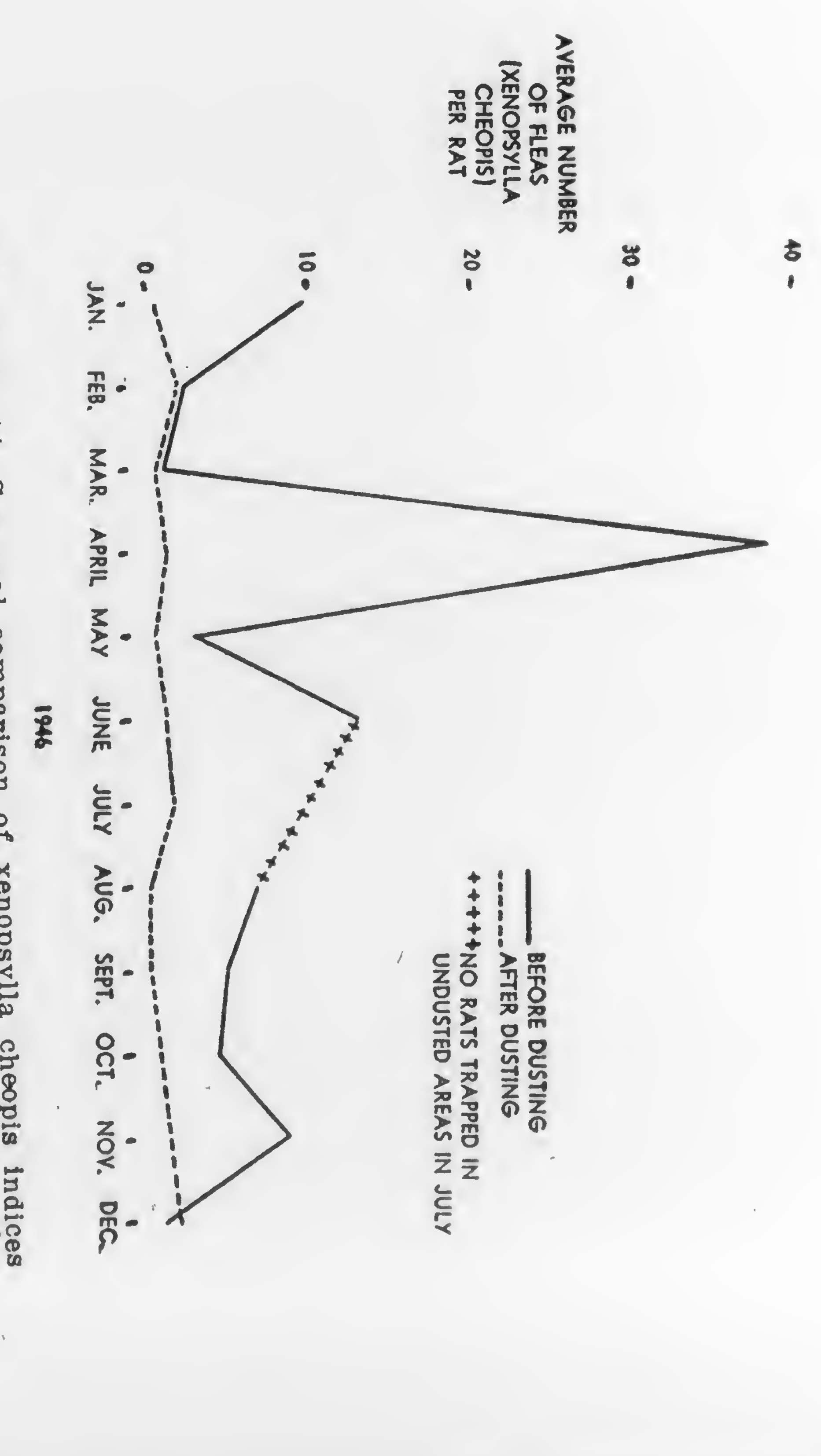

Figure No. 14—Seasonal comparison of xenopsylla cheopis indices on domestic rats before and after application of D.D.T. dust for experimental typhus control. (Seven cities in five counties in Florida)

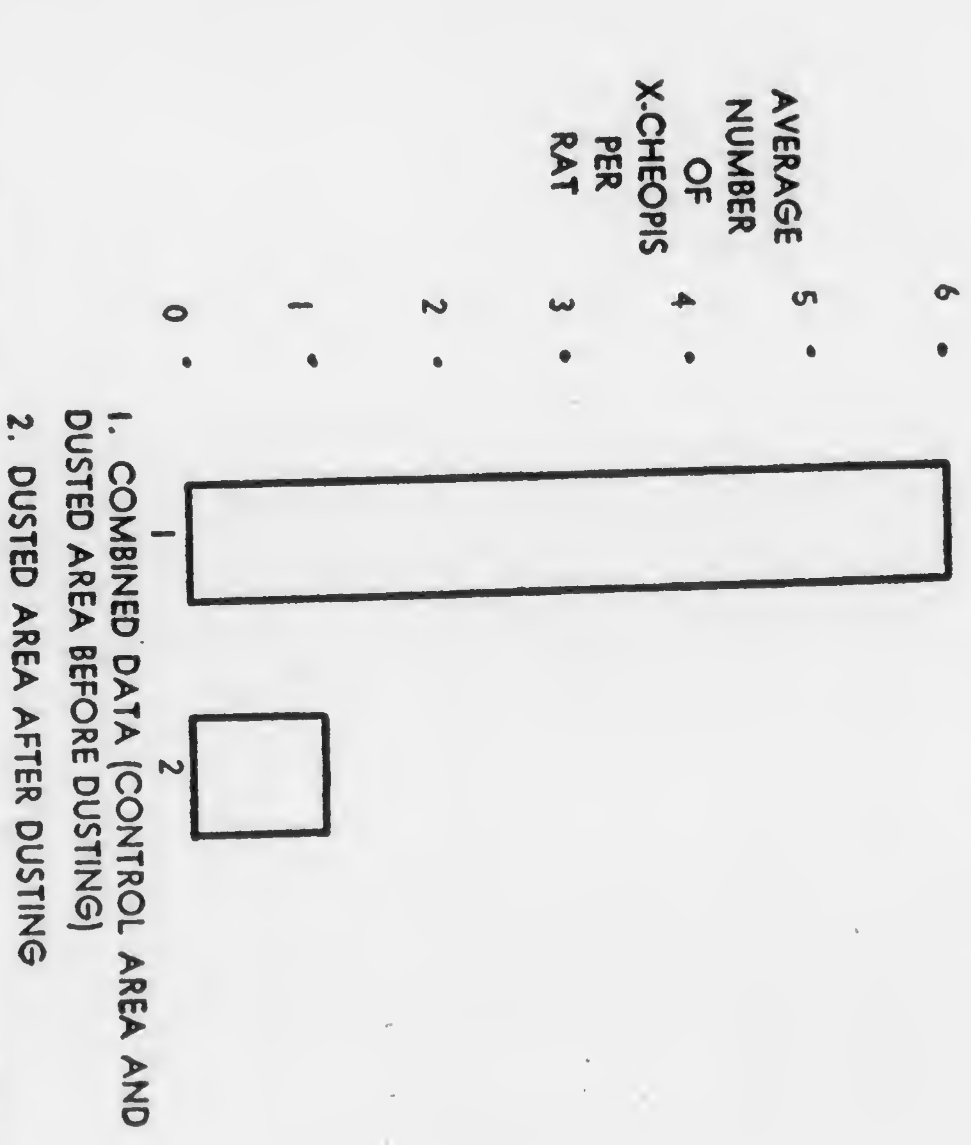

Figure No. 15—Average number of fleas per rat before and after dusting in test areas had developed were repaired and where reinfestation had occurred eradication measures were instituted to again free the buildings of rats. Rat-proofing construction like any other type construction requires periodic maintenance.

Some experimental work was done with Sodium Fluroacetate ''1080'' as a rodenticide. It was found to be very effective but since there is no known antidote for it and because of its high toxicity its use was limited to those places where careful supervision could be given by a representative of the health unit. Another new product, Antu (Alpha-Nephtyl-Thioureau) was used as a rodenticide in bait and also as a dust. The available supply of Antu was meagre but the department's limited experience with it led to the conclusion it was fairly effective in the control of Norway rats and less so in the case of the Alexandrinus or the climbing rats. Other rodenticides used were Red Squill, Barium Carbonate, arsenic, thallium sulphate and zinc phosphide. All of these except ''Red Squill'' are fatal to domestic animals such as cats, dogs and chickens and this bureau has strongly emphasized that caution be exercised and these poisons be used under careful supervision to prevent the occurrence of an untoward incident. Along with the dusting, rat-proofing, poisoning and trapping activities, promotional and educational work was done during the year to induce the proper storage, collection and disposal of garbage to cut down the number of easily accessible feeding places. The removal of trash, debris and other accumulation which provide excellent harborages for rats has also been stressed.

Table XXVIII shows tabulation of principal activities carried on during the year.

A certain amount of educational work was done through newspaper articles, lectures, motion pictures and on the radio. The January 1946 issue of Florida Health Notes was devoted to a discussion of murine typhus fever and recently a booklet ''Roddy the Rat'' has been published. Both of these booklets give a brief outline of the cause and manner in the spread of the disease and means of controlling it.

A good start has been made and it is hoped sufficient funds and personnel can be secured to permit the development of an expanded program more nearly adequate to meet the needs for control measures as shown by the statistical data available on the prevalence and wide distribution of typhus in the State.

TABLE XXVIII—PRINCIPAL ACTIVITIES — TYPHUS AND RODENT CONTROL
By Project — 1946

COUNTY	Total No. Visits All Reasons	No. Establishments rat-proofed	Total No. Premise Dustings	Total lbs. DDT used	Average lbs. DDT Per Prem.	No. Places Poisoned "1,080"	Pints "1,080" Water Used	No. Prem. Poisoned Other Baits	Total lbs. other bait used
Dade County (Miami)	11,528	61	7,777	9,173	1.18	528	264	5,984	2,992
Duval County (Jacksonville)	19,058	271	15,956	33,104	2.07	1,600	1,496	10,944	5,342
Escambia County (Pensacola)	7,176	67	5,931	10,041	1.69	34	17	1	1
Hillsborough County (Tampa)	16,171	209	9,044	27,243	3.01	131	262	211	162
Pinellas County (Dunedin, Largo, Tarpon Springs, St. Petersburg)	9,752	0	8,682	28,283	3.26	71	35	0	0
Polk County (Bartow)	1,003	39	4	28	7.00	31	16	0	0
TOTALS	64,688	647	47,394	107,872	2.28	2,395	2,090	17,140	8,497

LIST OF PROJECTS DEVELOPED IN THE BUREAU DRAFTING ROOM

1. Sanitary Survey Map of Escambia County for color slide reproduction.
2. Sanitary Survey Maps of Polk, Pinellas, and Bay Counties.
3. Map of the State of Florida locating all permitted Drainage Wells, indicating types.
4. Preliminary Sketches, final working plans and specifications for the Warehouse and Office Annex Buildings constructed on the State Board of Health grounds in Jacksonville.
5. Suggested Detail Drawings for Improvements in School Lunch Room and Kitchen Sanitation.
6. Revised drawing of plan for a typical medium-size abbattoir.
7. Maps showing extent and kind of polluted waters in the Pensacola Area to illustrate the Pensacola Pollution Survey Report.
8. Similar maps to illustrate the St. Johns River Pollution Survey Report.
9. Preliminary Plot and Floor Plans for a proposed three-story addition to the existing Laboratories Building in Pensacola.
10. Preparation of Preliminary Survey Data and Sketch Plans for a proposed Office Building for all bureaus and departments of the State Board of Health.
11. Numerous City, County and State maps, locating projects proposed or in progress.
12. Preparation of numerous miscellaneous charts, graphs, tables, and signs for this and other bureaus.
13. Preparation of numerous suggested septic tank, distribution box, and drain field layouts for installations throughout the State.
14. Reproductions of numerous tracings on the Ozalid-Black-Line Printing Machine for this and other bureaus.

FHA HOUSING DEVELOPMENTS (SEWAGE DISPOSAL & WATER SUPPLY)

During the year the working agreement with the Federal Housing Administration was continued whereby the bureau certifies individual sewage disposal and water supply systems serving premises for which the property mortgage is insured by the agency.

Briefly, the agreement mentioned involves inspections of the systems, which are performed principally by local health department personnel, and processing of pertinent documents to see that the sewage disposal and water supply systems meet State Sanitary Code requirements.

An integral part of this feature of the program is investigation into water table elevation, soil texture through percolation tests and drainage characteristics of areas proposed for housing developments, to determine adaptability of areas proposed for housing developments. to determine adaptability of septic tank and subsurface tile field as means of sewage disposal.

The following (Table XXIX) summarizes numerically this activity in cooperation with local health departments and the Federal Housing Administration:

TABLE XXIX

Form No.	DESCRIPTION	No. of Items
FHA-2218	Inspection Report & Certification (Sewage Disposal)	737
FHA-2084C	Percolation Report (Soil Characteristics & Water Table	54
FHA-2217	Inspection Report & Certification (Water Supply)	17

The relatively large number of investigations (FHA-2084c) of proposed housing development areas shows the activity in real estate subdivisions for future and some current construction. However, considarably fewer certifications (FHA-2218) of sewage disposal facilities were made; which might be considered to reflect somewhat chaotic conditions existing in housing construction during the year.

BUREAU OF MATERNAL AND CHILD HEALTH

LUCILLE J. MARSH, M.D., Director

The twelve objectives of the Maternal and Child Health program, outlined in the annual plan, have as their ultimate purpose the elimination of all preventable disease and disability among all mothers and children living in Florida.

By training personnel and providing clinicians for prenatal, postpartum and well baby conferences in the organized county health units, the existing facilities have been strengthened. A set of lesson plans for use with mothers' classes was prepared in cooperation with the Division of Public Health Nursing. Arrangements were made to provide a technician in the Central Laboratory to do Rh typing. Direct service in nutrition was begun in the maternal clinics of five counties with the MCH nutritionist regularly holding conferences at the clinics. Routine hemoglobin testing of all prenatal patients was arranged for with the Bureau of Laboratories, and the determination of serum protein made for patients in the clinics attended by the nutritionist.

Nutrition service has been given to the Children's Homes licensed by the State Welfare Board and to the hospitals convalescent homes from which service is purchased by the Crippled Children's Commission. A monthly nutrition bulletin for food service directors of children's institutions was begun late in 1946. The monthly newsletter of nutrition activities, begun in 1945, was continued throughout the year. Cooperation was given the University of Florida in the preparation of nutrition materials for public schools, and to the State Department of Education in its school lunch training program. The nutritionist has supervised a special study of the acceptability of non-fat dry milk solids in a school lunch program, which was a part of a larger cooperative project of the U. S. Department of Agriculture and the State Department of Education.

In order to assist in the extension of school health services throughout the State, health educators, physicians and nurses have been provided in a few counties ready to begin this additional service.

Scholarships were made available to 3 local health officers and one MCH clinician who attended the Southern Pediatric Seminar at Saluda, North Carolina, in July. Scholarships were also provided from MCH funds for the State Midwife Teacher at the Medical College of Richmond (Va.), and for public health nurses and nurses employed in

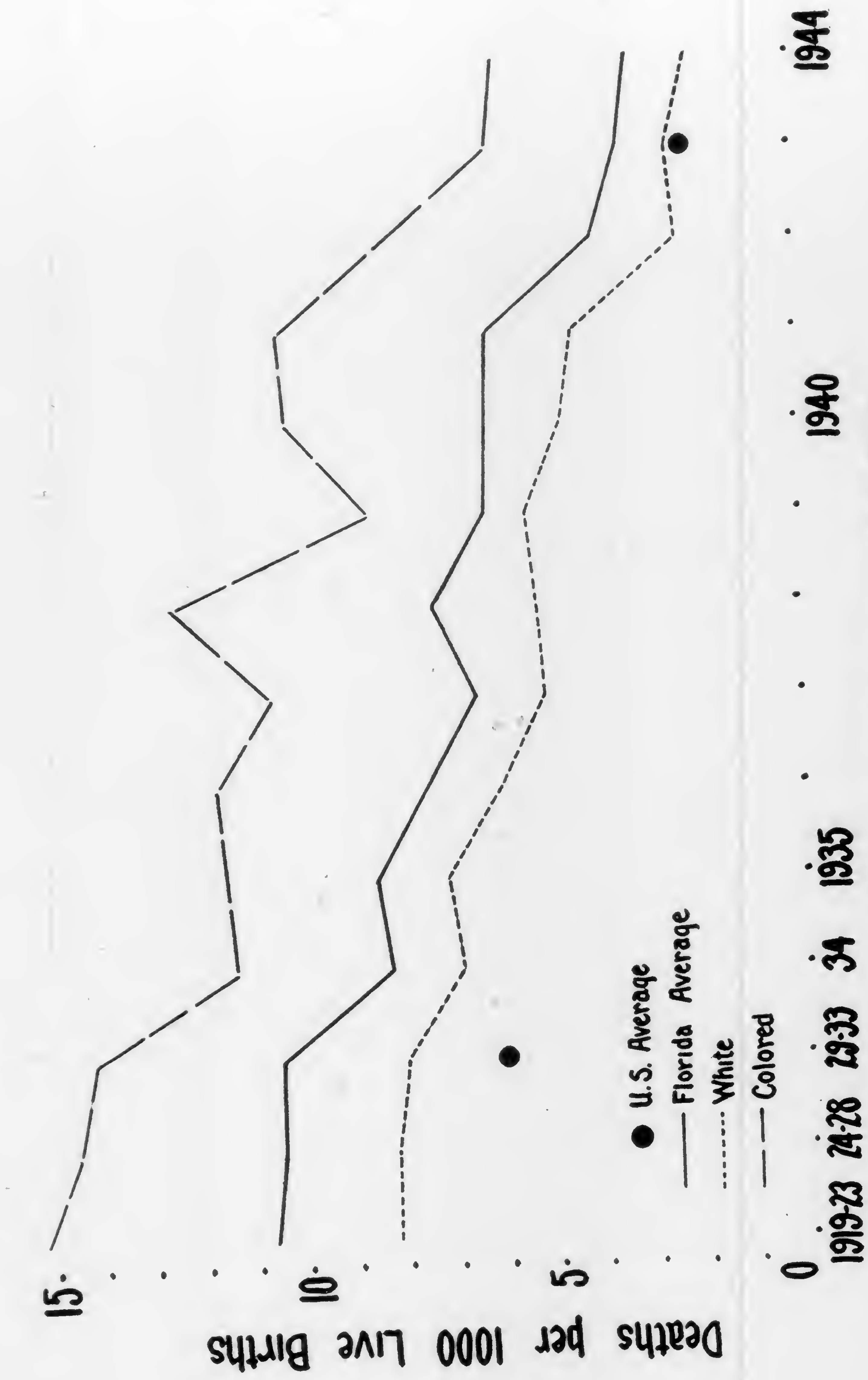

Figure No. 16—Maternal mortality rate for Florida

city or county hospitals in positions of responsibility where separate maternity and pediatric units are contemplated or are now in use. The latter were for short training courses in premature infant care at Johns Hopkins and Michael Reese Hospitals.

Lecturers were provided for the Postgraduate Medical Assembly held annually by the Florida Medical Association in Jacksonville.

Care for the immature infant continued to receive special attention. In one of the rural county seats where a premature program is sponsored by a local organization, the bureau provided an incubator from a nationally known manufacturer to be placed in the local hospital. One of the larger urban counties has set up a premature program which in time may serve as a pattern throughout the entire State. This would need to include notification immediately after birth, public health nursing instruction and supervision, transportaton to the hospital and hospitalization, if feasible. Demonstrations begun in previous years by the consultant nurse, with special training in care of the premature at Columbia University, have been continued.

Assistance was given in cooperation with other agencies toward the establishment of a Mothers' Milk Bank in Duval County. Travel and salary for the nurse were provided from MCH funds.

The Midwife Training Unit which had been set up in Leon County in 1945 was discontinued. Hospitalization, however, was still provided at Florida A & M College Hospital for the complicated cases among the Negro women in that area. Consultation, when needed, was made available by the white physicians of Leon County at no charge.

The bureau assisted in the Florida Study of Child Health Services conducted by the American Academy of Pediatrics. Office space, supplies, stenographic and clerical assistance were provided for the executive secretary who came from Washington to supervise the study in Florida. The MCH consultant nurse cooperated in the survey by securing information of statistical value from hospitals, physicians and county health units. Florida was among the first states to secure 100% reporting on hospital schedules. Primarily, the effort was a fact finding study undertaken by physicians to learn their strong and weak points. They believed that betterment of existing conditions could be accomplished intelligently on the basis of factual data.

The Emergency Maternity and Infant Care program by a natural sequence of events has consistently diminished throughout the year. No date has been set as yet for its termination; however, it will require months to close out cases already authorized when the program is concluded.

A paper on maternal mortality in Florida was prepared by the director in the hope that a study of the causes of maternal death would point the ways in which further improvement could be made. The accompanying chart shows the progress that has been made from 1919 to 1944. This paper was published during the last part of the year in the Journal of the Florida Medical Association.

The director served as a member of a number of committes, among which were the following: Florida Citizens' Committee on Education, School-Community Health Education Committee, and the Florida Children's Committee. Talks were given on programs concerned with maternal and child health and there was close cooperation with other agencies in this mutual problem.

Before the end of the year, the MCH director resigned to become Regional Medical Consultant for the Children's Bureau, Federal Security Agency. Insofar as possible, the activities of the bureau were carried on during the remainder of the year.

BUREAU OF LOCAL HEALTH SERVICES

GEORGE A. DAME, M.D., Director

GENERAL REMARKS

The personnel of the Bureau at the close of the year consisted of a director, two sanitation consultants, two records consultants, a chief clerk and a junior stenographer. Mr. Robert G. Carter, sanitation consultant, was transferred to the staff of the bureau on February 1. Miss Prudence Ross was employed as a records consultant on October 12.

On a local level considerable progress was made during the year in setting up new county health departments, in the number of new programs, in the improvement of already established programs, in securing more adequate and better trained personnel, and in the appropriation of more adequate funds from the State and from the counties.

There were trained for county health service at the training center at Gainesville during the year, eight (8) nurses, twenty-eight (28) sanitary officers and one (1) clerk. In addition to these, certain other persons were given short orientation periods of training. Other personnel received training outside of the State. This training, in addition to instruction and supervision given by field consultants. will gradually bring our county personnel to a much better standard of efficiency.

The director of the bureau attended several conferences within the year and gained information and training that will result in better administration of local health services in Florida. These conferences were: Institute on Public Health Administration, March 4, 5, 6, and 7 at Chapel Hill, North Carolina; Conference of Public Health Officials, U.S.P.H.S., District 4, at Edgewater Park, Mississippi on June 4, 5 and 6; School of Public Health, National Conference on Local Health Units, September 9, 10, 11, 12 and 13, at Ann Arbor, Michigan; Southern Rural Life Council at Nashville, Tennessee on December 6 and 7.

COUNTY HEALTH DEPARTMENTS

Public health services can only be fully administered on an efficient basis when all of the counties of the State have been organized into full time, completely staffed, fully financed county health departments set up into local health units as contemplated in the State's enabling act.

The effort to bring all of the sixty-seven (67) counties into the orbit of complete public health coverage has been long and tedious. At the end of 1944 there were thirty-six (36) county health departments. At the end of the year 1946 there were forty-five (45). All

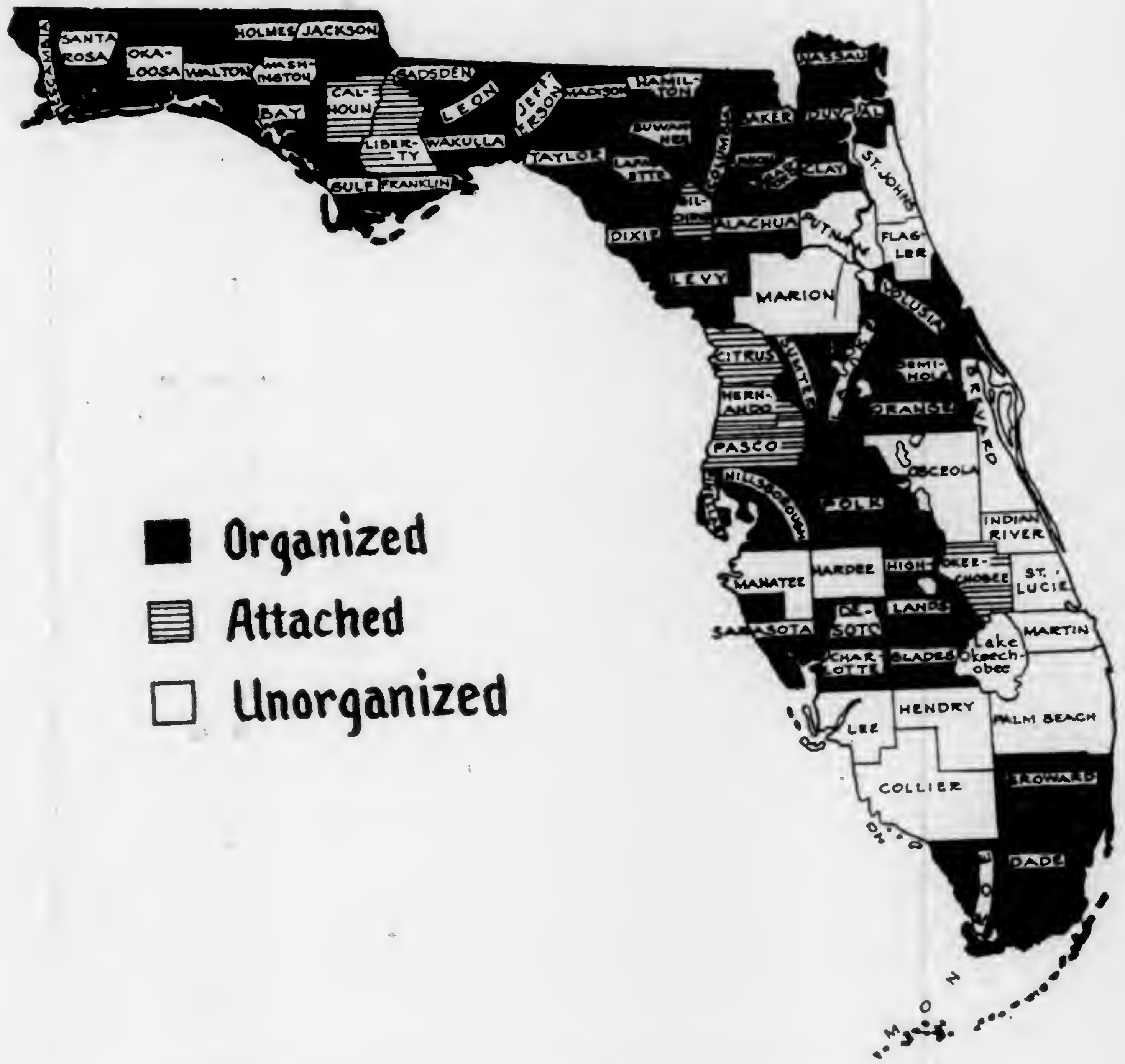

Figure No. 17—Distribution of county health units in Florida

plans were completed in December, 1946 for the setting up of seven (7) other county health department in January, 1947, making a total of fifty-two (52). It is very probable that ten (10) others will be organized in 1947. All of the State's sixty-seven (67) counties, it is believed, will be organized not later than October, 1948.

LOCAL HEALTH UNITS

When all of the counties of the State have health departments they will be administered through thirty-six (36) local health units. Such groupings are provided for in the enabling act. These local health units will be composed of one, two or three county health departments, depending upon area, population, transportation and community of interest.

Each county health department in a multiple local health unit retains its identity, its own budget, programs, and its relationship with its county officials and the State Board of Health and its own individual personnel except that it shares the health officer, the supervising nurse and the supervising sanitarian of the local health unit.

As of December 31, 1946, there were 29 local health units composed of the 45 organized county health departments, and seven (7) attached counties.

These attached counties are not organized and do not have a budget for local services. They receive certain supervision and services provided for by funds allocated to the unit to which they are attached.

STATE HEALTH DISTRICTS

These districts constitute a transitional phase of local health administration and are for the purpose of giving services to unorganized non-contributing counties. There were, as of December 31, 1946, twenty-two (22) unorganized or non-cooperating counties, of which seven (7) were attached to local health units. There were, then, fiifteen (15) counties constituting the State health districts.

State district funds were spent in these fifteen (15) counties for salaries and expenses of district personnel for as adequate a program of local health services as could be provided under the circumstances. In addition to district funds spent in these fifteen counties, other district funds were used for services of unit personnel in carrying out public health activities in those unorganized counties attached to local health units.

PERSONNEL STATISTICS

The local budgets are shown in the report of the Bureau of Finance and Accounts. The number on the pay roll as of December 31, 1946 is included in the report of the Personnel Office. Vacancies in each category are shown below:

> Health Officers 2; Assistant Health Officers 1; Part-time Clinicians 1; Dentists 2; Nurses, including all classifications, 37; Sanitation personnel budgeted (all classifications) 15; Clerical, including all classifications 5; All other classifications 17.

TABLE XXX—ACTIVITIES REPORT OF LOCAL HEALTH UNITS

STATE OF FLORIDA

Annual Report, 1946

	Alachua	Baker	Bay	Bradford	Broward	Clay	Columbia (July, 1946)	Dade	Dixie (July, 1946)	Duval	Escambia	Franklin	
COMMUNICABLE DISEASE CONTROL													
Admissions to service (A 1)	17	2	55	45	94	50	2	1,278	0	58	183	23	1,807
Consultations with physicians (A 2)	6	9	94	16	188	37	45	132	0	7	113	11	658
Field visits (A 3-9)	32	4	1,874	76	245	66	26	2,354	0	192	337	30	5,236
Smallpox immunizations (A 15)	492	329	549	45	129	198	5	6,514	7	1,711	1,430	96	11,500
Diphtheria immunizations (A 16-18)	603	440	561	89	591	54	212	4,191	57	1,195	2,165	69	10,227
Typhoid fever immunizations (A 19)	3,738	813	1,328	301	137	353	198	161	98	2,684	7,338	500	17,649
VENERAL DISEASE CONTROL													
Admissions to medical service (B 1)	772	58	364	254	443	325	83	5,818	19	38	2,688	46	10,908
Clinic visits (B 3)	6,288	436	2,795	1,045	5,357	1,056	835	22,871	108	362	5,999	244	41,996
Field visits (B 4)	1,107	32	3,298	452	1,674	255	61	15,727	32	186	4,921	185	27,930
TUBERCULOSIS CONTROL													
Individuals admitted to medical service (C 1)	2	14	12	108	237	35	42	2,106	3	140	7	12	2,718
Individuals admitted to nursing service (C 2)	321	53	208	123	236	37	56	862	7	328	780	75	3,086
Clinic visits (C 5)	2	81	212	124	375	33	52	2,724	0	5	0	47	3,655
Nursing visits (C 7-8)	869	105	863	218	1,213	93	107	1,996	7	1,063	1,775	142	8,451
MATERNITY SERVICE													
Cases admitted to medical service (D 1-8)	442	55	47	43	369	76	42	1,475	13	112	480	41	3,195
Cases admitted to nursing service (D 2-7-10)	587	170	142	15	524	129	52	3,500	6	353	841	54	6,373
Visits by antepartum cases to medical conferences (D 3)	573	80	132	82	718	144	55	3,417	12	134	1,693	89	7,129
Nursing visits (D 5-6-11-12)	1,774	352	551	60	1,288	335	110	7,145	41	925	2,027	135	14,743
INFANT HYGIENE													
Individuals admitted to medical service (E 1)	168	36	10	57	222	55	16	1,246	1	199	0	9	2,019
Individuals admitted to nursing service (E 2)	444	139	84	20	354	57	14	2,289	10	444	585	14	4,454
Visits to medical conferences (E 3)	244	64	68	118	429	100	21	3,307	2	701	2	25	5,081
Nursing visits (E 5-6)	1,189	347	210	57	874	120	18	6,314	14	1,365	1,579	19	12,106
PRESCHOOL HYGIENE													
Individuals admitted to medical service (E 8)	415	122	26	118	385	99	68	709	0	633	0	49	2,624
Individuals admitted to nursing service (E 9)	517	209	145	87	386	19	12	1,569	0	1,335	186	49	4,514
Visits to medical conferences (E 10)	512	199	42	206	600	168	94	1,442	0	1,611	0	86	4,960
Nursing visits (E 12-13)	1,299	503	396	105	702	50	24	4,297	22	3,137	553	80	11,168
Inspections by dentists or dental hygienists (E 14)	0	0	0	0	0	0	0	49	0	72	3	0	124

STATE OF FLORIDA

Annual Report, 1946

	Gadsden	Glades	Gulf	Hamilton (July, 1946)	Highlands	Hillsborough	Holmes	Jackson	Jefferson	Lafayette (July, 1946)	Lake	Total 1st page	Total 2nd page
COMMUNICABLE DISEASE CONTROL													
Admissions to service (A 1)	102	15	1	1	86	1,055	7	53	69	2	72	1,807	3,270
Consultations with physicians (A 2)	51	2	5	25	55	370	3	0	58	2	72	658	1,301
Field visits (A 3-9)	112	23	1	20	116	1,469	10	110	317	4	142	5,236	7,560
Smallpox immunizations (A 15)	384	1	82	0	174	3,283	96	139	87	21	489	11,500	16,256
Diphtheria immunizations (A 16-18)	490	21	58	0	177	3,430	576	1,378	542	30	566	10,227	17,495
Typhoid fever immunizations (A 19)	570	42	676	3	457	499	981	4,090	761	479	16	17,649	26,223
VENERAL DISEASE CONTROL													
Admissions to medical service (B 1)	620	9	173	10	194	2,176	42	810	156	6	278	10,908	15,382
Clinic visits (B 3)	4,717	153	963	72	1,288	34,818	1,106	4,096	1,591	8	5,246	41,996	96,054
Field visits (B 4)	1,142	20	110	41	199	5,407	80	6	347	17	290	27,930	35,569
TUBERCULOSIS CONTROL													
Individuals admitted to medical service (C 1)	424	2	1	6	9	1,966	1	11	95	12	22	2,718	5,267
Individuals admitted to nursing service (C 2)	478	14	35	7	54	1,740	29	135	18	12	257	3,086	5,865
Clinic visits (C 5)	416	2	0	6	0	3,513	2	14	115	28	32	3,655	7,783
Nursing visits (C 7-8)	824	14	97	16	90	3,202	118	351	33	35	503	8,451	13,734
MATERNITY SERVICE													
Cases admitted to medical service (D 1-8)	376	1	18	3	1	1,082	0	138	236	1	81	3,195	5,132
Cases admitted to nursing service (D 2-7-10)	798	7	48	2	29	2,301	18	372	196	8	181	6,373	10,333
Visits by antepartum cases to medical conferences (D 3)	739	1	18	5	0	2,336	0	163	235	0	96	7,129	10,722
Nursing visits (D 5-6-11-12)	2,195	12	207	3	58	5,887	69	775	484	15	396	14,743	24,844
INFANT HYGIENE													
Individuals admitted to medical service (E 1)	164	0	4	1	46	895	0	91	93	6	25	2,019	3,344
Individuals admitted to nursing service (E 2)	709	7	77	0	37	1,673	26	191	172	9	204	4,454	7,559
Visits to medical conferences (E 3)	270	0	4	2	74	1,488	0	300	142	6	31	5,081	7,398
Nursing visits (E 5-6)	1,483	12	190	0	178	4,497	42	308	323	17	421	12,106	19,577
PRESCHOOL HYGIENE													
Individuals admitted to medical service (E 8)	547	0	4	0	25	1,493	0	49	70	20	41	2,624	4,873
Individuals admitted to nursing service (E 9)	1,236	44	115	0	76	2,286	20	34	206	29	518	4,514	9,078
Visits to medical conferences (E 10)	418	0	4	0	26	2,688	0	177	98	20	42	4,960	8,433
Nursing visits (E 12-13)	2,278	70	483	3	107	5,412	30	54	330	59	784	11,168	20,719
Inspections by dentists or dental hygienists (E 14)	0	0	0	0	0	3	0	0	66	20	0	124	213

STATE OF FLORIDA

Annual Report, 1946

	Leon	Levy	Madison	Monroe	Nassau	Okaloosa	Orange	Pinellas	Polk	Santa Rosa	Seminole	Total 1 & 2 pages	Total 3rd page
COMMUNICABLE DISEASE CONTROL													
Admissions to service (A 1)	47	7	6	73	71	15	788	57	43	262	223	3,270	4,862
Consultations with physicians (A 2)	20	18	4	28	137	2	166	7	25	13	145	1,301	1,866
Field visits (A 3-9)	119	20	6	307	101	24	1,202	108	113	134	224	7,560	9,918
Smallpox immunizations (A 15)	2,170	440	170	445	326	141	2,126	942	355	803	135	16,256	24,309
Diphtheria immunizations (A 16-18)	1,210	80	58	1,717	550	134	2,374	899	437	736	307	17,495	25,997
Typhoid fever immunizations (A 19)	5,101	3,219	1,097	2,821	1,535	1,796	8,870	156	57	1,623	22	26,223	52,520
VENERAL DISEASE CONTROL													
Admissions to medical service (B 1)	1,458	26	201	321	88	15	924	622	152	92	223	15,382	19,504
Clinic visits (B 3)	11,004	411	2,270	2,061	1,187	71	6,515	7,178	613	476	1,826	96,054	129,666
Field visits (B 4)	1,023	409	115	157	144	53	1,447	562	817	96	694	35,569	41,086
TUBERCULOSIS CONTROL													
Individuals admitted to medical service (C 1)	85	24	119	199	27	0	146	469	0	1	163	5,267	6,500
Individuals admitted to nursing service (C 2)	48	71	122	303	127	16	693	727	370	70	40	5,865	8,452
Clinic visits (C 5)	268	30	204	260	43	0	7,367	374	75	1	218	7,783	16,623
Nursing visits (C 7-8)	121	185	169	546	357	84	1,898	1,431	1,393	113	608	13,734	20,639
MATERNITY SERVICE													
Cases admitted to medical service (D 1-8)	237	43	180	127	56	0	517	372	0	0	236	5,132	6,900
Cases admitted to nursing service (D 2-7-10)	259	70	167	150	180	24	529	504	21	46	550	10,333	12,833
Visits by antepartum cases to medical conferences (D 3)	331	90	663	282	168	0	745	1,167	0	0	260	10,722	14,428
Nursing visits (D 5-6-11-12)	798	189	323	454	410	80	871	1,456	51	104	1,717	24,844	31,297
INFANT HYGIENE													
Individuals admitted to medical service (E 1)	42	5	39	92	33	0	237	433	0	0	198	3,344	4,423
Individuals admitted to nursing service (E 2)	103	22	120	128	120	23	473	582	9	40	328	7,559	9,507
Visits to medical conferences (E 3)	76	5	45	165	98	1	381	1,035	0	5	265	7,398	9,474
Nursing visits (E 5-6)	215	33	165	371	251	51	708	2,024	27	98	1,459	19,577	24,979
PRESCHOOL HYGIENE													
Individuals admitted to medical service (E 8)	25	0	41	27	105	0	833	881	0	0	182	4,873	6,967
Individuals admitted to nursing service (E 9)	111	3	118	166	243	7	1,153	1,153	6	86	524	9,078	12,648
Visits to medical conferences (E 10)	46	1	59	93	462	0	1,363	1,604	0	0	259	8,433	12,320
Nursing visits (E 12-13)	175	7	189	678	512	41	1,353	2,497	7	184	3,515	20,719	29,877
Inspections by dentists or dental hygienists (E 14)	0	0	0	2	0	0	441	18	0	0	1,780	213	2,454

STATE OF FLORIDA

Annual Report, 1946

	Sumter	Suwannee (July, 1946)	Taylor	Union (August, 1946)	Volusia	Wakulla	Walton	Washington	Central District	Southeastern District	Southwestern District	Total 1, 2 & 3 pages	Total page 4
COMMUNICABLE DISEASE CONTROL													
Admissions to service (A 1)	131	2	4	30	152	58	2	6	0	5	1	4,862	5,253
Consultations with physicians (A 2)	10	29	2	12	4	0	6	36	0	34	2	1,866	2,001
Field visits (A 3-9)	136	13	33	48	269	62	2	73	0	24	1	9,918	10,579
Smallpox immunizations (A 15)	530	14	278	763	773	73	1	76	0	0	940	24,309	27,757
Diphtheria immunizations (A 16-18)	951	17	13	2	538	171	18	520	0	0	385	25,997	28,612
Typhoid fever immunizations (A 19)	12	63	909	1	25	845	167	1,701	0	0	859	52,520	57,102
VENERAL DISEASE CONTROL													
Admissions to medical service (B 1)	152	10	16	20	770	41	46	39	1	0	26	19,504	20,625
Clinic visits (B 3)	2,055	38	171	48	3,825	646	244	924	1	1	207	129,666	137,826
Field visits (B 4)	95	16	193	35	742	43	3	104	0	0	31	41,086	42,348
TUBERCULOSIS CONTROL													
Individuals admitted to medical service (C 1)	44	5	58	18	512	7	2	4	0	0	1	6,500	7,151
Individuals admitted to nursing service (C 2)	61	4	102	30	512	40	39	10	8	0	54	8,452	9,312
Clinic visits (C 5)	62	1	77	18	7	9	1	15	1	11	1	16,623	16,826
Nursing visits (C 7-8)	400	14	189	34	1,536	149	39	61	11	122	107	20,639	23,301
MATERNITY SERVICE													
Cases admitted to medical service (D 1-8)	3	0	24	5	133	65	0	6	0	0	0	6,900	7,136
Cases admitted to nursing service (D 2-7-10)	17	0	88	2	362	155	2	25	1	1	0	12,833	13,486
Visits by antepartum cases to medical conferences (D 3)	3	0	25	6	320	140	0	6	0	0	0	14,428	14,928
Nursing visits (D 5-6-11-12)	23	0	187	10	874	358	2	131	1	2	0	31,297	32,885
INFANT HYGIENE													
Individuals admitted to medical service (E 1)	1	0	3	3	175	42	0	19	0	0	0	4,423	4,666
Individuals admitted to nursing service (E 2)	15	0	126	14	377	139	1	81	0	1	1	9,507	10,212
Visits to medical conferences (E 3)	1	0	3	4	479	85	0	25	0	0	0	9,474	10,071
Nursing visits (E 5-6)	18	3	191	20	938	254	1	251	0	1	1	24,979	26,657
PRESCHOOL HYGIENE													
Individuals admitted to medical service (E 8)	0	30	4	13	450	55	0	26	0	0	0	6,967	7,545
Individuals admitted to nursing service (E 9)	31	3	308	3	700	308	4	2	0	0	2	12,648	14,009
Visits to medical conferences (E 10)	0	30	7	14	1,031	195	0	30	0	0	0	12,320	13,627
Nursing visits (E 12-13)	34	5	606	5	1,467	543	4	78	0	0	2	29,877	32,621
Inspections by dentists or dental hygienists (E 14)	0	0	0	0	195	0	0	1	0	0	0	2,454	2,650

STATE OF FLORIDA Annual Report, 1946	Northern District	Calhoun	Charlotte October, 1946	DeSoto October, 1946	Gilchrist	Hendry	Liberty	Okeechobee	Sarasota October, 1946			Total 1, 2, 3, 4 pages	Total 1946
COMMUNICABLE DISEASE CONTROL													
Admissions to service (A 1)	5	12	0	0	0	0	128	0	26			5,253	5,424
Consultations with physicians (A 2)	68	6	0	0	0	0	29	0	2			2,001	2,106
Field visits (A 3-9)	40	14	0	0	5	0	203	0	26			10,579	10,867
Smallpox immunizations (A 15)	0	0	0	0	0	0	29	30	7			27,757	27,823
Diphtheria immunizations (A 16-18)	375	836	0	16	0	0	161	57	5			28,612	30,062
Typhoid fever immunizations (A 19)	239	0	0	1	0	0	440	11	8			57,102	57,801
VENERAL DISEASE CONTROL													
Admissions to medical service (B 1)	57	1	0	38	0	0	1	9	22			20,625	20,753
Clinic visits (B 3)	281	1	0	149	0	0	1	26	64			137,826	138,348
Field visits (B 4)	252	1	0	66	6	1	2	0	39			42,348	42,715
TUBERCULOSIS CONTROL													
Individuals admitted to medical service (C 1)	31	0	0	3	1	0	3	0	9			7,151	7,198
Individuals admitted to nursing service (C 2)	33	0	0	1	3	9	4	0	61			9,312	9,423
Clinic visits (C 5)	44	0	0	0	1	0	2	0	8			16,826	16,881
Nursing visits (C 7-8)	51	0	0	4	7	9	5	0	89			23,301	23,466
MATERNITY SERVICE													
Cases admitted to medical service (D 1-8)	13	0	0	0	0	0	2	0	7			7,136	7,158
Cases admitted to nursing service (D 2-7-10)	19	1	0	1	0	0	7	0	14			13,486	13,528
Visits by antepartum cases to medical conferences (D 3)	14	0	0	0	0	0	3	0	8			14,928	14,953
Nursing visits (D 5-6-11-12)	25	1	0	1	0	0	14	0	29			32,885	32,955
INFANT HYGIENE													
Individuals admitted to medical service (E 1)	19	0	0	0	0	0	0	0	6			4,666	4,691
Individuals admitted to nursing service (E 2)	1	0	0	0	0	0	6	0	12			10,212	10,231
Visits to medical conferences (E 3)	22	0	0	0	0	0	0	0	6			10,071	10,099
Nursing visits (E 5-6)	1	0	0	0	0	0	13	0	37			26,657	26,708
PRESCHOOL HYGIENE													
Individuals admitted to medical service (E 8)	190	0	0	0	0	0	0	0	10			7,545	7,745
Individuals admitted to nursing service (E 9)	5	0	0	0	0	0	28	0	12			14,009	14,054
Visits to medical conferences (E 10)	221	0	0	0	0	0	0	0	10			13,627	13,858
Nursing visits (E 12-13)	18	0	0	0	0	0	35	0	23			32,621	32,692
Inspections by dentists or dental hygienists (E 14)	0	0	0	0	0	0	0	0	4			2,650	2,654

STATE OF FLORIDA Annual Report, 1946	Alachua	Baker	Bay	Bradford	Broward	Clay	Columbia	Dade	Dixie	Duval	Escambia	Franklin	
SCHOOL HYGIENE													
Inspections by physicians or nurses (F 1)	6,203	1,656	3,742	368	3,534	1,767	3	162,269	138	8,369	4,347	948	193,339
Examinations by physicians (F 2)	1,385	123	719	231	1,413	161	11	9,853	130	699	8	296	14,979
Individuals admitted to nursing service (F 4)	556	74	229	436	3,817	46	5	5,999	1	570	183	234	12,149
Nursing visits (F 5-6)	1,241	103	967	591	6,695	150	9	30,348	94	991	749	436	42,374
Inspections by dentists or dental hygienists (F 7)	0	0	96	0	0	0	0	13,671	0	940	8	3	14,718
ADULT HYGIENE													
Medical examinations (G 1-5)	2,145	195	488	425	542	627	103	304	5	1,398	1,204	491	6,723
MORBIDITY SERVICE													
Medical visits (H 3-4)	183	37	2	26	49	37	8	0	0	2	8	315	617
Nursing visits (H 5-6)	83	15	84	167	59	164	1	212	29	77	166	383	1,449
Admissions to hospitals (H 7)	0	0	0	0	1	26	1	0	0	3	1	7	39
GENERAL SANITATION													
Approved individual water supplies installed (J 1)	374	15	107	2	251	184	8	32	0	244	108	65	1,390
Approved excreta disposal systems installed (J 2-3)	770	58	369	18	1,067	194	11	1,285	1	1,883	198	50	5,904
Field visits (J 4-11	8,411	665	2,423	473	2,363	791	480	44,027	153	3,404	3,530	302	67,022
PROTECTION OF FOOD AND MILK													
Food handling establishments registered for supervision (K 1)	229	34	48	59	365	106	5	3,430	20	426	381	85	5,188
Field visits to food handling establishments (K 2)	1,722	548	576	653	3,664	495	54	24,311	39	1,417	2,092	524	36,095
Dairy farms registered for supervision (K 3)	21	14	42	7	0	5	1	69	4	2	68	0	233
Field visits to dairy farms (K 4)	234	27	204	69	122	38	2	1,605	10	21	730	7	3,069
Milk plants registered for supervision (K 5)	14	0	24	1	1	3	0	44	0	1	9	0	97
Field visits to milk plants (K 6)	111	0	102	1	38	22	0	1,932	0	8	488	1	2,703
LABORATORY													
Specimens examined (L 1-21)	20,715	1,163	5,632	2,134	5,437	1,974	1,698	189,248	219	3,128	23,596	1,568	256,512

STATE OF FLORIDA Annual Report, 1946	Gadsden	Glades	Gulf	Hamilton	Highlands	Hillsborough	Holmes	Jackson	Jefferson	Lafayette	Lake	Total 1st page	Total 2nd page
SCHOOL HYGIENE													
Inspections by physicians or nurses (F 1)	633	650	2,179	13	2,037	21,689	45	790	369	285	4,061	193,339	226,090
Examinations by physicians (F 2)	29	99	15	10	526	8,134	2	159	1,013	142	1,023	14,979	26,131
Individuals admitted to nursing service (F 4)	104	76	77	0	2,156	2,093	11	51	21	6	334	12,149	17,078
Nursing visits (F 5-6)	242	137	577	20	3,096	3,709	579	215	35	128	433	42,374	51,545
Inspections by dentist or dental hygienists (F 7)	2	0	15	0	230	3,740	482	0	570	142	0	14,718	19,899
ADULT HYGIENE													
Medical examinations (G 1-5)	112	0	237	16	294	20,426	95	512	347	8	493	6,723	29,263
MORBIDITY SERVICE													
Medical visits (H 3-4)	42	0	52	1	2	108	1	3,916	479	6	28	617	5,252
Nursing Visits (H 5-6)	170	33	71	0	1	978	27	1,640	2	21	293	1,449	4,685
Admissions to hospitals (H 7)	13	0	0	0	0	7	0	1	1	0	0	39	61
GENERAL SANITATION													
Approved individual water supplies installed (J 1)	183	0	36	1	2	2,888	33	37	53	0	83	1,390	4,706
Approved excreta disposal systems installed (J 2-3)	524	4	89	8	108	3,044	87	62	71	0	518	5,904	10,419
Field visits (J 4-11)	1,185	2	596	82	137	57,440	268	547	1,037	0	3,283	67,022	131,599
PROTECTION OF FOOD AND MILK													
Food handling establishments registered for supervision (K 1)	33	14	89	1	133	2,474	27	69	34	0	110	5,188	8,172
Field visits to food handling establishments (K 2)	463	68	544	16	1,278	15,847	167	346	110	0	403	36,095	54,937
Dairy farms registered for supervision (K 3)	8	6	2	3	10	97	2	42	2	0	7	233	412
Field visits to dairy farms (K 4)	117	70	13	5	147	1,673	31	131	14	0	71	3,069	5,341
Milk plants registered for supervision (K 5)	1	1	0	0	8	53	4	7	3	0	10	97	179
Field visits to milk plants (K 6)	38	10	0	0	81	815	8	15	6	0	35	2,703	3,711
LABORATORY													
Specimens examined (L 1-21)	6,431	178	1,033	100	1,656	67,967	1,398	5,701	3,694	115	5,535	256,512	350,320

STATE OF FLORIDA Annual Report, 1946	Leon	Levy	Madison	Monroe	Nassau	Okaloosa	Orange	Pinellas	Polk	Santa Rosa	Seminole	Total 1st & 2nd page	Total 3rd page
SCHOOL HYGIENE													
Inspections by physicians or nurses (F 1)	105	316	135	5,476	3,744	311	6,499	6,936	0	584	8,279	226,090	258,475
Examinations by physicians (F 2)	112	585	175	654	270	1	2,121	4,791	215	0	2,253	26,131	37,308
Individuals admitted to nursing service (F 4)	37	6	120	55	331	35	631	630	5	121	273	17,078	19,322
Nursing visits (F 5-6)	868	28	385	1,568	1,045	153	5,532	1,669	15	440	3,624	51,545	66,872
Inspections by dentist or dental hygienists (F 7)	0	0	646	342	167	0	1,986	346	0	0	3,350	19,899	26,736
ADULT HYGIENE													
Medical examinations (G 1-5)	4,191	132	387	698	414	445	1,802	1,728	652	0	362	29,263	40,074
MORBIDITY SERVICE													
Medical visits (H 3-4)	69	30	648	46	185	0	216	5	0	0	38	5,252	6,489
Nursing visits (H 5-6)	339	101	305	138	166	221	633	208	386	156	107	4,685	7,445
Admissions to hospitals (H 7)	9	1	0	3	1	0	10	2	1	0	7	61	95
GENERAL SANITATION													
Approved individual water supplies installed (J 1)	61	3	25	6	57	3	297	0	1	0	98	4,706	5,257
Approved excreta disposal systems installed (J 2-3)	396	76	36	66	63	107	603	101	465	3	191	10,419	12,463
Field visits (J 4-11)	1,833	622	1,063	1,272	849	530	2,559	2,142	2,273	210	1,345	131,599	146,297
PROTECTION OF FOOD AND MILK													
Food handling establishments registered for supervision (K 1)	265	56	113	68	46	95	357	39	479	61	88	8,172	9,839
Field visits to food handling establishments (K 2)	2,179	113	1,052	946	978	554	1,633	541	1,988	513	356	54,937	65,790
Dairy farms registered for supervision (K 3)	27	2	10	1	6	1	0	1	40	0	4	412	504
Field visits to dairy farms (K 4)	114	5	324	11	43	4	0	2	547	17	15	5,341	6,423
Milk plants registered for supervision (K 5)	11	0	1	1	5	0	1	1	9	2	4	179	214
Field visits to milk plants (K 6)	61	4	118	28	37	0	6	1	281	4	12	3,711	4,263
LABORATORY													
Specimens examined (L 1-21)	15,460	1,642	6,393	4,440	2,306	2,529	8,931	9,055	2,961	741	2,420	350,320	407,198

STATE OF FLORIDA Annual Report, 1946	Sumter	Suwannee	Taylor	Union	Volusia	Wakulla	Walton	Washington	Central District	Southeastern District	Southwestern District	Total 1, 2, 3 pages	Total
SCHOOL HYGIENE													
Inspections by physicians or nurses (F 1)	203	61	168	2,137	4,800	761	164	1,454	0	0	15	258,475	268,238
Examinations by physicians (F 2)	620	573	707	60	3,572	80	2	360	0	0	0	37,308	43,282
Individuals admitted to nursing service (F 4)	58	1	147	26	328	16	39	22	0	0	3	19,322	19,962
Nursing visits (F 5-6)	150	28	271	56	1,386	128	76	260	0	0	8	66,872	69,235
Inspections by dentist or dental hygienists (F 7)	2	372	945	0	3,381	0	950	40	0	0	0	26,736	32,426
ADULT HYGIENE													
Medical examinations (G 1-5)	299	70	110	42	1,743	137	124	160	0	0	0	40,074	42,759
MORBIDITY SERVICE													
Medical visits (H 3-4)	159	0	56	13	1	195	0	988	0	0	0	6,489	7,901
Nursing visits (H 5-6)	17	0	97	33	124	359	15	884	0	0	3	7,445	8,979
Admissions to hospitals (H 7)	0	0	8	0	2	0	1	13	0	0	2	95	121
GENERAL SANITATION													
Approved individual water supplies installed (J 1)	9	18	54	2	821	0	49	124	16	8	2	5,257	6,360
Approved excreta disposal systems installed (J 2-3)	76	14	296	1	915	20	146	209	84	147	30	12,463	14,401
Field visits (J 4-11)	505	206	2,086	49	4,383	289	1,421	1,191	1,193	878	374	146,297	158,872
PROTECTION OF FOOD AND MILK													
Food handling establishments registered for supervision (K 1)	56	91	33	15	657	22	55	32	39	1	37	9,839	10,877
Field visits to food handling establishments (K 2)	129	240	270	39	6,356	74	264	433	301	5	65	65,790	73,966
Dairy farms registered for supervision (K 3)	5	8	5	3	37	5	10	20	0	1	10	504	608
Field visits to dairy farms (K 4)	19	64	0	5	673	12	77	293	0	19	23	6,423	7,608
Milk plants registered for supervision (K 5)	0	0	0	0	14	1	7	1	0	2	4	214	243
Field visits to milk plants (K 6)	1	0	0	0	512	2	12	15	0	13	6	4,263	4,824
LABORATORY													
Specimens examined (L 1-21)	2,366	530	208	314	11,635	1,187	1,035	1,648	6	0	145	407,198	426,272

STATE OF FLORIDA Annual Report, 1946	Northern District	Calhoun	Charlotte	DeSoto	Gilchrist	Hendry	Liberty	Okeechobee	Sarasota			Total 1, 2, 3, 4 pages	Total 1946
SCHOOL HYGIENE													
Inspections by physicians or nurses (F 1)	3	0	0	6	0	0	0	0	226			268,238	268,473
Examinations by physicians (F 2)	1,355	0	0	0	0	0	0	0	17			43,282	44,654
Individuals admitted to nursing service (F 4)	3	0	0	1	0	0	3	0	20			19,962	19,989
Nursing visits (F 5-6)	3	0	0	1	0	0	3	0	73			69,235	69,315
Inspections by dentist or dental hygienists (F 7)	0	0	0	0	0	0	0	0	1			32,426	32,427
ADULT HYGIENE													
Medical examinations (G 1-5)	28	0	0	83	0	0	0	0	164			42,759	43,034
MORBIDITY SERVICE													
Medical visits (H 3-4)	1,377	0	0	0	0	0	0	0	0			7,901	9,278
Nursing visits (H 5-6)	16	0	0	0	0	0	3	0	0			8,979	8,998
Admissions to hospitals (H 7)	1	0	0	0	0	0	0	0	1			121	123
GENERAL SANITATION													
Approved individual water supplies installed (J 1)	0	0	0	1	0	0	0	0	0			6,360	6,361
Approved excreta disposal systems installed (J 2-3)	24	0	1	0	0	0	1	0	0			14,401	14,427
Field visits (J 4-11)	371	47	3	2	1	26	20	0	114			158,872	159,456
PROTECTION OF FOOD AND MILK													
Food handling establishments registered for supervision (K 1)	45	12	0	0	0	1	0	0	13			10,877	10,948
Field visits to food handling establishments (K 2)	123	12	0	0	0	5	0	0	173			73,966	74,279
Dairy farms registered for supervision (K 3)	4	0	0	0	0	1	0	0	20			608	633
Field visits to dairy farms (K 4)	6	0	0	0	0	1	0	0	32			7,608	7,647
Milk plants registered for supervision (K 5)	1	0	0	0	0	0	0	0	7			243	251
Field visits to milk plants (K 6)	1	0	0	0	0	0	0	0	13			4,824	4,838
LABORATORY													
Specimens examined (L 1-21)	1,844	13	0	263	1	0	20	25	230			426,272	428,668

PUBLIC HEALTH NURSING

RUTH METTINGER, R.N.

The tension of post war years has not decreased in the Division of Public Health Nursing. The limitation placed on the program by the lack of trained personnel is greater now than at any previous time. The insistent demand for more nurses is not peculiar to public health nursing nor confined to Florida or even America, it is general and universal.

At the joint meeting of the State Directors of Public Health Nursing and the Collegiate Council of Public Health Nursing in Cleveland a committee was appointed to collect data on the number of nurse vacancies in public health agencies throughout the United States. The actual number of vacancies in Florida as of December 31, 1946 was three state consultants, three local supervisors, twenty-three staff nurses, four vacancies from the Visiting Nurse's Association, which has been organized for the past two years, and one vacancy was reported by the County Board of Education, making a total of thirty-one nurse vacancies in the state.

The maintaining of standards has been an important function of the Division of Public Health Nursing. Unfortunately state funds were not available for the basic preparation in public health nursing but nurses assigned to counties without preparation or training have been given the two months orientation course at the In-Service Training Center in Gainesville. Seven nurses have had this opportunity during the past year. The importance of this training was stressed at the annual meeting of State Directors for District No. 4 in Gulfport, Mississippi. Vanderbilt has continued their affiliation with the In-Service Training Center in Gainesville by sending three students for two months field experience. Duval County has also taken two students and given joint experience with the Jacksonville Visiting Nurses' Association.

Negotiations are in progress with the University of North Carolina to give field training to the students of their public health nursing course in several counties in Florida. The preparations will be completed in time for the spring quarter field training of the class of 1946—47.

The Division of Public Health Nursing has assisted with the Bureau of Maternal and Child Health by assigning a state consultant to make a survey of hospitals and nursing homes for the Academy of Pediatrics. A total of 146 hospitals and 79 nursing homes were studied. Desiring to improve the quality of care to infants the Division of Public Health Nursing arranged for further education in this phase of nursing for which four nurses from different hospitals in the state took a three months course in pediatrics financed by Maternal and Child Health.

The lessons planned by Maternal and Child Health for teaching mother's classes were prepared by the Division of Public Health Nursing and the Bureau of Maternal and Child Health. These will be distributed to the county health units as a guide to the county nurses.

In cooperation with the Bureau of Maternal and Child Health the Division of Public Health Nursing has licensed 388 midwives; 8 have been honorably discharged due to old age or illness, and 22 reported that they would not practice during the year. The State Midwife Consultant has investigated cases when indicated, and assisted the county nurses with the midwife program. Midwives are requested to report all premature births to the public health nurse as well as to have all pre-natal cases examined by the physician at least once during pregnancy. The negro nurse-midwife teacher received a scholarship to secure advanced education in maternity and to complete her public health nursing course.

Integation of the nursing service in the activities of the various bureaus was guided further by the development of five tuberculosis institutes planned cooperatively by the Tuberculosis Bureau and the Public Health Nursing Division. The principal speakers were the Tuberculosis Nursing Consultant of the Public Health Service and the Medical Director of the Bureau of Tuberculosis. More than 300 nurses attended the institutes.

The State Tuberculosis Consultant and the District Consultants cooperated to set up registers and do the pre-planning with the county nurses for the mobile x-ray unit. Advanced education in tuberculosis has been given to five nurses selected by the Division of Public Health Nursing and financed by the Tuberculosis Bureau. In each instance the nurses were given further education with the approval of the county health officer.

Two nurses were given courses in Veneral Disease at one of the Universities offering the approved course. This was financed by the Bureau of Preventable Diseases.

The V. D. Consultant loaned by the U. S. Public Health Service was withdrawn six mouths after her assignment and this position has yet been filled.

Nurses were urged to attend school for their basic course at their own expense and as a result three took the approved course in public health nursing.

The anual census of nurses is shown in table XXXI.

TABLE XXXI

TOTAL NUMBER AND QUALIFICATIONS OF THE NURSES EMPLOYED FOR PUBLIC HEALTH WORK IN FLORIDA, 1946

Type of Agency	TOTAL NUMBER			GENERAL EDUCATION				PUBLIC HEALTH NURSING PROGRAM OF STUDY					
	Agencies	Nurses Employed		High School but no Collegiate Degree		One or More Collegiate Degrees		None		Less than one Academic Year		One or More Academic Years	
		Supervisors	Staff	Supervisors	Staff	Supervisors	Staff	Supervisors	Staff	Supervisors	Staff	Supervisors	Staff
State Health Dept.	1	7 (1)*		4 (1)		3				2 (1)		5	
Other State Agencies	1	1	4		4	1			4			1	
RURAL	14		13		10		3		9		4		
Depts. of Health													
URBAN	31	21	173 (15)	16	163 (12)	5	10 (3)		100 (5)	1	28 (4)	20	46 (6)
RURAL	1		3		3				2		1		
Bds. of Education—													
URBAN	6		15		14		1		13		1		1
RURAL	1		3 (1)		1		2 (1)		2 (1)				
Other Official Agencies													
URBAN	12	1	78 (26)		73 (25)	1	5 (1)	1	34 (17)		6 (4)		12 (5)
RURAL													
Non-Official Agencies													
URBAN	6	5	38 (5)	4	38 (5)	1		3	40 (5)	1	3	1	
TOTAL	73	35 (1)	327 (47)	24 (1)	306 (42)	11	21 (5)	4	204 (18)	5 (1)	43 (8)	27	58 (11)

Number counties having no nurses engaged in full-time public health work in rural areas None

Number incorporated cities and towns (population 10,000 or more) having no nurses engaged in full-time public health work None

Note: *( ) indicates colored

DENTAL HEALTH

GEORGE A. DAME, M.D., (Acting Director)

PERSONNEL

Poor dental health is a serious handicap to a large percentage of our children as well as adults. School children, and mothers in the prenatal and postnatal state, are particularly important in a program for the securing of better dental health.

The State Board of Health is well aware of the necessity of carrying out an adequate program of dental health in an over-all program of public health services throughout the state. In its efforts to conduct such a program, it has been severely handicapped by a lack of personnel.

Both at the state level and in the county health department it has been impossible to secure an adequate staff of public health dentists to carry on the work which has been provided for through ample finances in the budgets of the Division, and of the county health departments. There simply have not been a sufficient number of licensed and equipped dentists to supply the needs of the state.

The need for more dentists in our public health program may probably be met by licensing more dentists to practice in the state, and by offering salaries sufficiently high to induce a greater number to adopt public health dentistry as a career.

The Division of Dental Health, for the first six months of the year, had a personnel consisting of a director, one field dentist in charge of a ''dentomobile,'' one dental assistant, and a secretary. On June 30, 1946, the director, Dr. Drew H. Turner, and the dental assistant resigned. The director of the Bureau of Local Health Service was appointed to serve until a qualified public health dentist could be found to head the Division. For the last six months of the calendar year ending December 31, 1946, the personnel of the Division consisted of an acting director, a field dentist, and a secretary.

For the year 1947, funds are available for, and plans call for, a director, four field dentists in charge of four ''dentomobiles,'' four dental assistants, and a secretary. At present, the Division has two dentomobiles, one of which is not staffed.

OBJECTIVES

Since the organization of the Division of Dental Health in 1936, its objectives have been the dissemination of health information and education, and provision of dental corrective care to indigent prenatal and postnatal mothers, preschool, and school children. These objectives are still being pursued vigorously within the limits of the Division's inadequate personnel.

Dental health information and education were provided through the media of demonstration clinics, distribution of literature, dental health lectures or talks, and moving pictures.

Dental corrective care was made possible through the operation of the dentomobile, through full-time clinics conducted in organized county health departments, and through the services of local, part-time dentists in their offices, paid by the county health department.

Two dentomobiles were in use during the first six months of the year, and one during the latter half of the year. Full-time dental clinics were conducted in four counties as a part of the county health department's program: eleven months in Dade County, six months in Duval County, six months in Hillsborough County, and seven months in Pinellas County. Funds were set up in several county health departments for care by local dentists on a part-time basis.

MISCELLANY

Dr. Turner, representing the State Board of Health, attended the Fifth Medico-Dental Convention in Mexico City, Mexico, February 18-23. He also attended the Thomas B. Hinman Dental Clinic in Atlanta, March 24-28.

The Division cooperated with the American College of Pediatrics in its nation-wide study of child health services.

Considerable time was spent in interviewing young dental graduates who had just been licensed to practice in the state. All of them, however, either entered private practice for themselves, or became associated with older private practitioners, or entered the armed services of the United States.

The Division of Dental Health, formerly a bureau, was set up as a division under the Bureau of Local Health Service, on August 18, 1946.

STATISTICS

PART-TIME DENTAL SERVICES IN COUNTIES

Mos.	Counties & No. Dentists Participating	Maternal	School	Total	Treatments	Extractions	Fillings			Prophylaxis
							Ama.	Sil.	Cem.	
4	Bay 3		59	59	28	45	27		7	5
5	Monroe 1	6	31	37	29	34	15	3	8	1
1	Orange 2		6	6	3	6	5	3	3	

TABLE XXXII—FULL-TIME COUNTY HEALTH DEPARTMENT CLINICS

		Dade 11 mos.	Duval 6 mos.	Hillsborough 6 mos.	Pinellas 7 mos.	Totals 30 mos.
Patients—new		452	601	612	296	1,961
" repeat		714	1,021	661	829	3,225
Inspections		11,568	638	3,974	364	16,544
Prophylaxis		211	243	124	115	693
Corrections:						
Fillings, Amalgam —	Deciduous	239	90	6	240	575
" "	Permanent	965	817	123	576	2,481
" Cement	Deciduous	42	43	185	139	409
" "	Permanent	149	206	141	219	715
" Silicate	Permanent	141	25	14	97	277
Extractions	Deciduous	346	513	179	312	1,350
"	Permanent	225	107	379	64	775
Treatments		679	213	437	215	1,544
X-rays				4	24	28
Miscellaneous		104	211		94	409
Total Corrections		2,890	2,225	1,468	1,980	8,563
Health Education:						
Chair Instruction		755	523	523	338	2,139
No. Pcs. Lit. given out		741	1,168	320	56	2,285
No. Talks & Attendance			6,186			
No. Movies Shown & Attendance			6,300			

TABLE XXXIII—STATE DENTOMOBILE DEMONSTRATION CLINICS

	Maternal	Preschool	School	Total
Patients, new	2	115	2,277	2,394
Patients, repeat	3	2	1,347	1,352
Inspections	2	113	3,099	3,214
Prophylaxis		2	1,991	1,993
Corrections:				
Fillings, amalgam (D. & P.)		7	3,067	3,074
" cement "	2		901	903
" silicate (P.)			39	39
Extractions (D. & P.)	3		1,053	1,056
Treatments	5		2,594	2,599
X-rays				
Miscellaneous	3		5,193	5,196
Total Corrections	13	7	12,847	12,867
Health Education:				
Chair Instruction	2	25	3,607	3,634
No. Pcs. Literature given	4	25	7,078	7,107
Classroom Talks & Attendance			126	5,100
Civic Groups & Attendance			2	100
Movies Shown & Attendance			4	300

HEALTH INFORMATION

RUTH STUART ALLEN (Acting Director)

Prime purpose of the Division of Health Information during the past year was to furnish information to the public through the media of moving pictures, pamphlets, posters, radio transcriptions, newspaper releases and talks to civic and service groups. Also, to supply through the Medical library, pertinent public health information to technicians and professional personnel.

During the entire year the acting director also carried on a phase of her usual duties, that of press and radio consultation through which all newspaper material was processed and distributed as well as the direction of a restricted state-wide radio project. Under this publicity routine also came the responsibility for editing Health Notes and Health Express, official magazine and personnel newspaper. All black and white pictures depicting the services of the State Board of Health and local health departments were also made in line with the publicity work.

Departments of the Division consist of the medical library, art department, film library, administration and press and radio (publicity). The latter however, was established as an individual section in 1945 under the direct supervision of the State Health Officer, to be effective at the time a director could be obtained for the Division proper.

The Division is a clearing house for lay information pertaining to all other State Board of Health bureaus and divisions. Also, it assists local health departments in disseminating information about their programs by supplying health and visual education materials, consultation with health unit personnel and contact with local newspapers and radio stations.

During the first half of the year the acting direction was, with one exception, without any assistance for community organization, general health education and publicity writing and therefore carried on the three-fold program alone. The exception was Mrs. Margaret Blake the Negro Health Educator. The following report therefore shows a combined effort rather than an individual report for the director as such.

The only extra technical help during the year came on July 1, in the form of a newspaper writer. During September two part time junior stenographers were added. The personnel at this writing consists of Miss Lora-Frances Davis, librarian; Miss Jeannette Washburn, artist; James Geiger, film custodian; Miss Miriam Gibson, writer; Miss Mildred Handy, Negro Health Educator; Mrs. Mary Collins, chief clerk; Miss Ramona Nelson and Miss Martha Reid, junior stenographers and the acting director-publicity consultant, Mrs. Ruth Stuart Allen.

During the first three months of 1946 emphasis was placed on spearheading the program of the mobile x-ray unit. This was the first time that promotion had been supplied from the state level in cooperation with local health departments and local tuberculosis association.

In every county where the acting director spearheaded the survey the number of x-rays made were doubled and in some cases increased as much as four and five times the number taken on the previous visit.

Activities in this connection consisted of speaking to groups, writing news articles, furnishing movies, radio programs, posters and other visual aids; meeting with the local groups in organization plans; always in conjunction with the sectional consultant from the State Tuberculosis Association.

At the beginning of April it became imperative for the acting director to relax her activities in connection with the Tuberculosis Bureau, but her survey resulted in direct proof that such pre-promotion work was important and necessary if a maximum of x-rays are to be made in local surveys. Sometime around the middle of the year the Tuberculosis Control Bureau employed two health educators to carry on this work. However, the Division of Health Information continued to furnish promotion materials such as movie trailers, 16mm movies, newspaper mats and posters and radio announcements for the project.

During the first half of the year considerable time was also spent with the State Wide Negro Health Committee in preparation for the annual state meeting held in Daytona Beach and a district conference in Marianna in May. Mrs. Margaret Blake, Negro health educator at that time spent most of her time in local organization work. However, the Division lent her services to the A & M College in Tallahassee to direct the health education work shop from May 15 to June 26. Directly after this project she was sent to Los Angeles as principle speaker at a national Negro health conference. She then resigned and was replaced by Miss Mildred Handy who devoted the remaining months of the year to local organizational projects. The acting director, being personally interested in Negro health education was in close contact with the Consultant in this work at all times and made a number of pictures for release in Florida and national newspapers.

The Division worked closely with the Hillsborough County Health Department in presenting a large display at the Florida State Fair in February. The staff artist did the designing and supervised the installation of the booth. He (George Brunetti, the artist at that time) was assisted by James Geiger film custodian who showed health movies during the first three days of the Fair. This work was then carried on by local personnel.

Another display was arranged at the Pensacola Inter-State Fair in the form of a "live" exhibit. The mobile x-ray unit took chest pictures and Dr. Walter Wilkins was on hand with his blood testing mobile unit, designed to locate and analyze the reason for anemia in school children. The mobile unit was presented in cooperation with the Escambia County Tuberculosis Association and the Escambia County Health Department. The acting-director was responsible for all arrangements with the authorities and coordinated the procedure of the four groups involved.

Another display was prepared for the State Safety Council meeting. Also the Division made all arrangements and collaborated in the preparation of a laboratory, malaria control and venereal disease booth at the Florida Medical Association meeting held in Jacksonville in April.

The acting director was in charge of publicity, helped with the community organization and made pictures in connection with the school for food handlers in Ocala in March. Another special-event promotion and pubilicity project was that of making arrangements and handling publicity for the open Board meeting also held in Ocala in March.

Other special projects were:

1. Publicity for the Florida Anti-Mosquito Control Convention in West Palm Beach in April.
2. Speaking to the In-Service Training School personnel four hours both in March and in November on public relations, health education and publicity.
3. State-wide publicity on National Public Health Nursing week, with suggestions to local nurses about displays and local publicity.
4. Publicity for the Florida Medical Association's postgraduate school held in Jacksonville in June.
5. Compiled material for Governor Caldwell's radio address and furnished information and pictures for story which later ran in the Florida Highways Magazine.
6. All publicity for the Florida Public Health Association conference held in Miami Beach in October. Services consisted of pre-publicity and finally the servicing of four daily papers, one news service bureau and five photographic outlets as well as arranging personal newspaper interviews for a number of individuals.
7. Two special state-wide publicity campaigns for Filling Station Clean-up, one in January and the second in October, were also handled by the acting-director.

IN CONNECTION WITH RADIO:

Special promotional tuberculosis copy in connection with the mobile x-ray units were prepared and the cutting of transcriptions supervised.

Five, one minute spots on immunization, sanitation, rodent control and the disposal of household garbage were also written with a local radio station cutting the records. The five spots were processed on one platter with 20 platters cut. Twenty radio stations in the State used each of these spots ten or more times. This material was placed personally with each station by the acting director.

A series of 32, 15 minute radio programs, written and executed by Miss Elizabeth Reed, director of the Visiting Nurse Association were aired in Jacksonville. These programs were also recorded and some of them were used as a trial balloon for a more ambitious program planned for the coming year.

Another important series of broadcasts was in connection with the polio hysteria which swept the State. In this case, the director did not prepare the copy but did make all arrangements for it to be presented. There were four broadcasts made by Dr. Wilson T. Sowder, State Health Officer:

Two locally, one state-wide and one nation-wide.

IN CONNECTION WITH NEWSPAPER PUBLICITY AND PUBLIC RELATIONS:

During the past year the director was unable to make as many personal calls on daily and weekly newspapers as previously because of the administrative demands of the Division. However, more than 200 visits were made and at least 50 newspapers were called on from two to five times during the year.

More than 64,000 inches of newspaper and magazine coverage on health problems was reported over the state. (There were 39,465 in 1945) The acting director does not presume to take credit for preparing and distributing this total, but feels that her contact with local newspapers plus her encouragement of the local health officers to report their programs went a long way to supplement her releases and to account for the over-all coverage.

Articles prepared at the Central Office consisted of a regular weekly news story to all newspapers, local stories prepared specifically for certain papers, of stories released daily to the local papers and wire services, of special promotion on special control measures and for civic and service groups such as Chambers of Commerce.

More than 500 stories were prepared and cleared over the director's desk during 1946. They were for:

Dental Health
Tuberculosis
Venereal Disease
Malaria Control
Narcotics
Cancer
Industrial Hygiene
Public Health Nursing
Maternal and Child Health
Sanitary Engineering
Nutrition Investigations and Services
The Laboratories

HEALTH NOTES AND HEALTH EXPRESS

Twelve issues of health Notes were edited, and the copy of two issues written by the director. They were devoted to:

Typhus Control
Venereal Disease
Need for Local Health Departments
Cancer Control
Local Health
Malaria Control
Pasturized Milk
Florida Health Officers Issue
Laboratories
Yellow Fever
Child Health
Tuberculosis

Four issues of Health Express the minature newspaper edited for the State Board of Health central and local personnel were written, the layout and pictures executed.

PICTURES

The acting director has been in charge of making all pictures for the State Board of Health consumption for the past three years. At least 400 pictures made in all sections of the State were processed this year. They were used in full page layouts, in mats for local consumption for Health Notes and Health Express illustrations and for promotional needs of the various bureaus and divisions. Particularly have they been used by members of the Bureau of Sanitary Engineering in their clean up campaigns, before and after pictures. Many pictures have been reduced to 35 mm. slides. They were also sent on request to various federal bureaus.

ART DEPARTMENT

Records for activities during the first half of 1946 are incomplete, but during the last half the Artist, Miss Jeannette Washburn, reports making layouts and the executive execution of almost 800 individual pieces of art in connection with maps, posters, cartoons, drawings, stencils, card and book signs, illustrations, graphs, charts and various sets of numbers and nameplates.

FILM LIBRARY

During 1946 we were to add more than $3,000 worth of film materials such as projectors, essential mechanics for maintaining a film library and many new films to our roster of equipment.

Duties of the film librarian consist of reviewing proposed new films, checking all films returned from current bookings and repairing when necessary and keeping films dispatched on time. The ability to repair projectors and other equipment is essential.

Considerable credit for our film library goes to Mr. James Geiger who is responsible for the consolidation of this service. It was not until the past two years that the films were actually kept properly repaired and an airtight record of where equipment is on loan and as well as its general condition plus how effectively it is being used. It is true however, that considerable promotion has been directed toward increasing the use of our films during the past two or three years and better care and checking of equipment was of course, a natural need which had to be cared for.

Users of the State Board of Health's nearly 200 health movies comprise local health units, schools, civic and service clubs and church groups. During 1946 more than 150,000 persons saw SBH movies. The total of 1,679 showings are reported.

THE LIBRARY

LORA FRANCIS DAVIS, Librarian

During 1946 the Library suffered the extreme disadvantage of being under the administration of three different librarians: Mrs. Adele Miller, until January 31; Mrs. Katie Sikes (who had served the library enthusiastically for nine years), until June 30; and from August 5, Lora-Frances Davis. Because of leaves, etc., for a part of the year the Library was without adequate supervision. During this time (May 1—August 31) William B. Blanford, a high school student, did circulation work. On September 5, Martha Reid, high school senior, became half-time secretary for the Library.

Despite the handicap of changing personnel, the usuage of the Library for a three-year-period shows continued increase in 1946:

Circulation	Books	Periodicals	Pamphlets & Reprints	Total
1944	764	504	241	1,509
1945	846	647	514	2,007
1946	908	682	520	2,110

The largest service of the Library was not in circulation, however, but in reference work. By mail 266 requests for information were supplied. No accurate account was kept of the number of reference questions answered throughout the year, but from October through December, 303 queries were answered. On this basis around 1,200 replies were made to reference questions in 1946.

It is interesting to note the types of questions. Several Florida physicians were speakers at the Southern Medical Meeting, as was our own Dr. Marion Hood, parasitologist. For these speakers a list of the latest articles on their subjects was prepared, and books and articles not available here were obtained through inter-library loans. Many college students have sought aid in writing term papers on Florida health laws, history of the Board, or special health problems. "Mail-order-borrowers" usually ask for strictly medical books or for Florida laws on some special subject, but the recent sanitarians' examination by the Merit System afforded a number of inquires on wells, clams and oyster houses, and dairy inspection. In prosecuting a suicide claim, a lawyer had the librarian searching for information on gunshot wounds and ballistics. Two patrons engaged in medical writing

make use of bibliographic service, journals, books, and extra material obtained through inter-library loans.

Library holdings have been estimated at 10,000 books and bound periodicals. During 1946 new books numbered 577, and 77 volumes of journals were bound. Purchases were concentrated on industrial hygiene for the benefit of the new Division of Industrial Hygiene and on chemistry because of the books needed by the Chemistry Laboratory. The most expensive single purchase was The Encyclopaedia Brittanica, c1946; the Library had never owned a general encyclopaedia.

Of the 248 periodicals currently received, the Florida State Board of Health subscribed to 86; the Florida Medical Association gave 77; the others were gifts of publishers or of individuals, L. Y. Dyrenforth, M. D., Jacksonville, being the most generous individual contributor. Journals given by the Florida Medical Association always reach the Library one year late; however, frequently the current issue is obtained for immediate usage whenever need arises. This system, worked out many years ago, has doubled the library's holdings of medical journals.

Subscription lists of medical and technical journals of St. Luke's Hospital and Yerkes Laboratory of Primate Biology have been obtained. These have been of real value in securing the immediate use of special articles for Jacksonville physicians and State Board of Health personnel.

Other articles not available here were supplied in the form of 99 photoduplicates from the Army Medical Library during the period July through December.

Two other choice gifts were made: through the Medical Library Exchange (of which this Library is a member), the American Journal of Diseases of Children, v. 26—v. 52, 1923-1936; by The John M. Wheeler Library, Institute of Opthalmology, Presbyterian Hospital, New York, several hundred recent reprints of articles on diseases of the eye.

The Library is also indebted to the Jacksonville Public Library for the use of the United States Catalog and other order and reference materials.

Several changes have been made in routines and arrangements: (1) A definite loan period of one month has been set for all books and for materials mailed, and a two-weeks loan period for unbound periodicals to Jacksonville patrons. Loans may be renewed unless there are other calls for the material. (2) The Library has been rearranged so that the librarian's desk is near the entrance, and she can more easily be of assistance to readers. Additional space is available also for study and for meetings and conferences. (3) Book shelves have been labeled by subject, and periodical shelves by title to facilitate the use of the Library. (4) Some weeding out of valueless material has been accomplished, especially in dental books in which J. E. Urich, D.D.S., Bureau of Dental Health, was of able and welcome assistance. (5) Cataloging has continued on a back log of books, pamphlets, and reprints that have accrued over several years.

Realizing that the Library is not used one tenth as much as it should be, the librarian has been using every opportunity time permits in acquainting potential readers with the materials available. Toward that end a display room of books and current journals was equipped at the Florida Public Health Association meeting in Miami in October. With the aid of the staff artist, Miss Jeannette Washburn, and with the approval of book titles by the heads of the various Bureaus and Departments, a booklet was designed and distributed at the meeting. This booklet was planned with local health units in mind, and a section was devoted to book lists for nurses, for engineers and sanitarians, for health officers, and for laboratory personnel. Later the county health officers, district engineers, directors of the branch laboratories all received letters inviting them to use the Library and enclosing enough copies of the booklet for their staff members. Some of these booklets have been used in answering correspondence and in distribution at group meetings, such as the sanitarians training class at which the Librarian was requested to speak.

Subsequent to the Florida Public Health Association meeting, the librarian remained in Miami for several days to assist the Dade County Health Unit in setting up its library. This Unit had bought three hundred books or more and a number of pamphlets. A simple library plan was worked out and explained to the health officer's secretary who will have charge of the library there. Book and author cards were typed, and how to type subject and title cards from the tracing was explained to her. This plan seemed to be satisfactory, and a copy of it was placed in this Library's files so that the same plan could be used for any other health units desiring the librarian's aid in setting up a simple library plan.

The only other direct assistance given to the counties, except through purchasing advice and book loans, was the gifts to newly set up county health units of some duplicate copies of books still up-to-date in information.

Future plans: (1) To employ an assistant librarian among whose duties would be the cataloging of several hundred books now of little value to the Library because of no record of their existence. (2) To acquire working space in the attic for processing and cataloging books. (3) To acquire space in the attic for sorting and listing duplicate medical journals to be exchanged through the Medical Library Exchange. (4) To sort and discard worthless materials in the pamphlet and reprint file. (5) To expand the pamphlet and reprint file. (6) To promote the use of the Library through the librarian's keeping readers and potential readers informed of material of interest to them as it comes in. (7) To promote the Library's standing in the library world by improving our technical set-up, by being represented at library meetings, and by keeping in close contacts with other medical and technical libraries.

BUREAU OF LABORATORIES

A. V. HARDY, M.D., Director

PERSONNEL

The present Director was appointed to his position early in 1946 and reported for duty in mid-February. The immediate problem was to build up the staff which had become seriously depleted during the war years. The professional sections of the laboratory are Bacteriology, Serology, Parasitology, and Chemistry. Roland B. Mitchell, Ph. D., was obtained to act as Chief of Bacteriology and simultaneously to serve as the Assistant Director, Bureau of Laboratories. Marion W. Hood, Ph. D., accepted the position of Chief of Parasitology and Herman I. Chinn, Ph. D., that of Chief of Chemistry. These were all on duty by August first. Miss Carolyn Roth continued as the able Chief of Serology. Two additional professionally trained workers were obtained for the Central Laboratory but qualified junior workers with experience could not be found. The clerical staff was placed under the supervision of Mrs. Esther Fenn. Plans for a Supply Section were drawn up but neither funds nor personnel were available to meet this need during the year.

H. D. Venters, W. H. Miller and Janet Bell continued to serve as Bacteriologists in Charge of the Tampa, Miami and Tallahassee Branch Laboratories, respectively. The Pensacola Branch Laboratory was under the supervision of temporary directors. Efforts to obtain a permanent highly qualified chief of that laboratory have not been successful.

To satisfy our need for trained personnel, a training program was established. Its major purpose was to qualify graduates of Florida's Colleges and Universities for professional positions in the Bureau of Laboratories. College graduates with science majors were accepted for training in public health laboratory procedures for a minimum period of one year. During this training period they were classified as Junior Assistants (Internes) and received a salary. It was a "Learn-while-you-earn" program. The laboratory was also approved by the Veterans Administration and the Florida State Board of Education for "On-The-Job" training of qualified veterans. At the end of the year five veterans, two with service connected disabilities, and five other junior assistants were in training. Weekly staff meetings were instituted and contributed to the teaching program. These were attended by all professional and technical workers and trainees. The latter in addition had a weekly seminar.

QUARTERS, EQUIPMENT AND SUPPLIES

During the past decade the volume of work performed by the Laboratories has more than trebled, as shown in Table XXXIV. The space available for Bacteriology, Serology and Parasitology has not been expanded. The problem of fitting the work into the present quarters was a difficult one. In the Central Laboratory, the Serology Section was moved from a room in the basement to a much larger one on the main floor. This made the basement room available for the expanded activities of Parasitology. The Diagnostic, Sanitary, Microscopic and Immunology activities of the Bacteriology Section were housed in separate rooms. The clerical staff was brought together in rooms where all of the necessary preparation, mailing and filing of laboratory reports could be accomplished. Chemistry, previously housed in one small room, did obtain reasonably adequate quarters in a temporary building constructed during 1946. This laboratory was developed as a cooperative unit to serve the needs of Industrial Hygiene and Nutritional Investigation as well as for general diagnostic work.

There were no major changes in the Miami, Pensacola or Tallahassee laboratories. Plans for the renovation of the Tampa laboratory were drawn up and the exterior work completed. The interior renovation could not be carried forward, first due to the unavilability of the necessary boilers, and later to the very wide discrepancy between the available funds and the lowest bid.

Equipment and supplies in quantities adequate to meet needs have not been available. The laboratory has been handicapped seriously by the lack of mailing containers. The objective has been to attain a rapid circulation with a minimum number of containers held in storage. Essential glassware was a second scarce item. A delay of 18 months has occurred between the date of ordering and the time of delivery of these scarce items.

DIAGNOSTIC EXAMINATIONS

The numbers, types and results of diagnostic examinations are shown in Tables XXXV and XXXVI. The volume of diagnostic work increased by approximately 10 percent as compared with the preceding year.

INVESTIGATIONS

During the current year there was little time for other than the diagnostic work and the training program. Despite these limitations some studies were initiated. The Bacteriology Section gave attention to the modification and simplification of technics for the laboratory diagnosis of tuberculosis, gonorrhea and diphtheria. The Salmonella typing was continued. The Parasitology Section developed, tested and applied a simple procedure for a quantitative estimation of the intensity of hookworm infection. Extensive surveys of the incidence and intensity of this condition were completed. This section cooperated with the State and the Public Health Service Nutrition Investigation groups.

APPROVAL OF PRIVATE LABORATORIES

It is required that premarital and prenatal serological tests shall be performed in approved laboratories. To fulfill this requirement, a serological evaluation of all private laboratories was undertaken. Test sera were distributed and were examined in the Public Health Service V. D. Laboratory, in Dr. R. L. Kahn's laboratory and in our own Central Laboratory. The findings reported by the private laboratories were compared with those from these control laboratories. The requirements for formal approval were drawn up and at the close of the year were awaiting consideration by the Board of Health.

PROJECTED DEVELOPMENTS

Steps have been taken looking toward developments in the coming year. The need for a branch laboratory in Orlando is acknowledged. In cooperation with local agencies, we have sought to locate satisfactory quarters. Likewise in Tallahassee there has been a search for space which would permit the desired growth of that laboratory.

The major unattained objective is that of developing a substantial investigative program. Actually the time and energy of all staff members has been consumed with the continual pressure of accomplishing the large volume of diagnostic work. We recognize the urgent need for budgetary provisions which will permit competent workers to give undisturbed attention to inviting problems calling for study.

TABLE XXXIV—A DECADE OF GROWTH IN THE DEVELOPMENT OF THE BUREAU OF LABORATORIES, FLORIDA STATE BOARD OF HEALTH

Year	Jacksonville	Tampa	Pensacola	Miami	Tallahassee	Total
1946	673,316	286,067	35,262	217,950	19,828	1,232,424
1945	580,998	260,002	18,047	260,816	13,135	1,132,998
1944	637,795	271,002	42,071	240,524	11,703	1,203,095
1943	700,414	295,575	59,403	239,557	25,109	1,320,058
1942	939,730	276,627	61,869	245,347	35,892	1,559,465
1941	767,162	196,486	15,496	197,148	12,320	1,188,612
1940	423,404	126,390	16,127	112,357	15,495	693,773
1939	306,014	90,700	14,666	81,022	9,599	502,001
1938	239,077	79,884	21,353	74,600	15,571	430,485
1937	207,125	72,190	20,991	66,141	15,570	383,017
1936	169,560	67,276	18,391	61,776	12,815	329,818

TABLE XXXV—EXAMINATIONS ACCOMPLISHED BY THE CENTRAL AND BRANCH LABORATORIES, FLORIDA STATE BOARD OF HEALTH

Type of Examinations	Jacksonville	Tampa	Miami	Pensacola	Tallahassee	Totals
Intestinal Parasites	69,831	12,087	3,551	946	6,918	93,333
Throat Specimens	8,418	3,439	806	446	213	13,322
Malaria	5,928	1,305	274	110	847	8,464
Agglutinations	26,001	5,936	8,065	145	494	40,641
Cultures—Blood	4,583	0	14	0	0	4,597
Cultures—Feces	21,890	1,169	2,776	231	0	26,066
Rabies Examinations	484	77	34	5	0	600
Tuberculosis	13,432	1,953	1,917	506	229	18,037
Gonorrhea	40,502	33,998	21,781	11,235	7,171	114,687
Serology—Kahn	391,000	115,975	139,162	19,194	0	665,331
Serology—Eagle	0	84,112	10,246	0	0	94,358
Serology—Mazzini	65,556	14,027	11,484	64	0	91,131
Water—Bacteriology	11,248	2,830	5,427	206	648	20,359
Water—Chemistry	2,210	0	166	0	0	2,376
Milk Examinations	1,881	7,532	8,753	2,110	3,305	23,581
Chemistry—Blood	1,809	998	16	12	0	2,835
Chemistry—Spinal Fluids	7,629	566	2	0	0	8,197
Miscellaneous	914	63	3,476	52	3	4,508
TOTALS	673,316	286,067	217,950	35,262	19,828	1,232,423

TABLE XXXVI—SUMMARY REPORT OF EXAMINATIONS PERFORMED DURING 1946

	Positive	Negative	Doubtful	Unsat.	Total	Grand Total
INTESTINAL PARASITES						
Total No. Specimens Exam.						93,333
Helminths ova		58,787	2	1,953	83,108	
Hookworm	19,160					
Ascaris	1,574					
Oxyuris	1,066					
Tapeworm	113					
Trichuris	392					
Strongyloides	61					
Protozoan cysts					10,225	
Endamoeba coli	5,378					
E. histolytica	631					
Endolimax nana	1,318					
Chilomastix mesnili	90					
Giardia lamblia	2,726					
Iodameba	82					
THROAT SPECIMENS						
Diphtheria						
Cultures	442	11,282	94	46	11,864	
Virulence Tests	5	6			11	
Vincent's angina	505	780	21	10	1,316	
Streptococcus	36	90	2	3	131	13,322
Malaria						
Tertian	277	8,150	2	26	8,455	
Estivo-autumnal	1				1	
Untyped	8				8	8,464
AGGLUTINATION TESTS						
Typhoid						
"H" Agglutinins	404	6,841	241	208	7,694	
"O" Agglutinins	107	7,066	106	19	7,298	
Paratyphoid A	1	1,245	7	1	1,254	
Paratyphoid B	21	1,207	25	1	1,254	
Weil-Felix	306	7,849	98	3	8,256	
Brucella abortus	126	8,698	34	34	8,892	
P. tularense	20	5,957	5	1	5,983	
Rocky Mt. Spotted Fever	1	8	1		10	40,641
CULTURES						
Blood						
Typhoid	8	4,454		121	4,583	
Salmonella	1				1	
Brucella	5	3			8	
Other organisms	5				5	4,597
Stool and Urine						
Typhoid	105	24,996		447	25,548	
Salmonella	216	75			291	25,839
Stool						
Bacillary Dysentery	151	76				227
TUBERCULOSIS						
Microscopic						
Acid-fast stain	2,061	14,426	240	1,128	17,855	
Fluorescent stain						
Cultures					115	
Animal inoculation	4	48		15	67	18,037
VENEREAL DISEASES						
Gonorrhea						
Smears	9,885	67,059	3,048	657	80,649	
Cultures	5,978	27,485	2	263	33,728	
Ophthalmia	32	273	3	2	310	114,687
Syphilis						
Kahn						
Blood						
Qualitative	101,108	467,775	7,626	23,955	600,464	
Quantitative	53,026				53,026	
Verification test	176	6	1		183	
Evaluation test	230	182	8	19	439	654,112
Spinal fluid						
Qualitative	1,211	9,012	15	67	10,305	
Quantitative	914				914	11,219
Eagle						
Blood						
Qualitative	9,942	81,309	3,062		94,313	
Evaluation test	17	22	6		45	94,358

	Positive	Negative	Doubtful	Unsat.	Total	Grand Total
Mazzini						
Blood						
Qualitative	26,658	57,525	4,250	2,280	90,713	
Evaluation test	218	183	7	10	418	91,131
Darkfield	216	357	1	25	599	599
Chancroid		3			3	3
Granuloma inguinale						
RABIES						
Dogs	162	296		20	478	
Cats	5	65		6	76	
Other animals	5	41			46	
Animal inoculations						600
MISCELLANEOUS						
Smears					177	
Cultures					268	
Leprosy					4	
Other					128	577
PHOTOELECTRIC COLORIMETRIC DETERMINATIONS						
Hemoglobin					2,822	
Protein cerebrospinal fluid					8,197	
Blood Levels					13	11,032

	No. Samples Examined	Total Number Tests Made	
WATER			
Bacteriological	17,230	20,359	20,359
Chemical			
Water	258	1,118	
Miscellaneous	122	451	
	438	807	2,376
MILK PRODUCTS			
Milk	4,858	18,975	
Cream	769	1,970	
Ice Cream	541	1,093	
Chocolate milk	278	729	
Cryoscope	10	10	
	701	804	23,581
MISCELLANEOUS	2,349	3,329	3,329
TOTAL OF EXAMINATIONS			1,232,424

BUREAU OF NARCOTICS

M. H. DOSS, Ph.G., Director

The Bureau of Narcotics is charged by law with the enforcement of all narcotic, medical, pharmacy, narcotic vehicle seizure act, registration and licensing of all drug stores, wholesale drug concerns handling narcotics, and guarding of the buildings, grounds and equipment of the State Board of Health. The table of activities carried in this report is confirmed by individual case reports permanently on file in this office.

The personnel of the bureau consists of five narcotic inspectors, three uniformed guards, a chief clerk and a senior clerk. Field offices are located at Miami, Tampa and Tallahassee.

TOTAL SUMMARY OF ACTIVITIES

Total number open inspections	2,383
Total number investigations	1,368
Total number arrests	76
Total number violations corrected where no legal action was taken	138
Aggregate sentences imposed by the courts	54 years, 5 months, 22 days
Aggregate fines imposed by the courts	$2,705.00
Total number defendants receiving probation, deferred or suspended sentences	21
Total number cases discharged or nolle prosequi by the courts	3
Total number narcotic addicts confined to State or Federal institutions for treatment	7
Total number cars seized and forfeited under State Narcotic Vehicle Seizure Act	1
Total number cases resulting in an acquittal by jury	4
Total number miles driven	89,463

UNIFORM NARCOTIC DRUG ACT
(Chapter 398, Florida Statutes 1941)

Number arrests	59
Aggregate sentences imposed by criminal courts	52 years, 5 months, 22 days
Aggregate fines imposed by criminal courts	$200.00
Number persons receiving probation, deferred, withheld or suspended sentences	10
Number cases discharged or nolle prosequi by the courts	3
Number prosecutions resulting in an acquittal	2

STATE DRUG AND SIGN ACT (Pharmacy)
(Chapter 465, Florida Statutes 1941)

Number arrests	11
Aggregate fines imposed by criminal courts	$1,405.00
Number drug stores or pharmacies registered for fiscal year 1946-47	789
Number violations corrected where no legal action was taken	115

MEDICAL PRACTICE ACT
(Chapter 458, Florida Statutes 1941)

Number arrests	6
Aggregate sentences imposed by the criminal courts	2 years
Aggregate fines imposed by criminal courts	$2,000.00
Number defendants receiving suspended sentences or placed on probation	3
Number cases resulting in an acquittal	2
Number violations corrected where no legal action was taken	23
Number Medical Doctors (M.D.) registered	2,971
Number Osteopathic Physicians (D.O.) registered	423
Number Naturopathic Physicians (N.D.) registered	229
Number Chiropractic Physicians (D.C.) registered	301
Number Masseurs registered	531
Number Chiropodists registered	112

BUREAU OF VITAL STATISTICS

CLAYTON F. MAYO, M.P.H., Director

Inasmuch as the 1946 annual statistical report of this Bureau will be published separately, this report is confined primarily to activities of the central office.

By and large, the year 1946 has been a very full one for the Bureau of Vital Statistics. There has been a decrease in some of the activities of the Bureau but a corresponding increase in others. The accelerating rate of birth for Florida and the continuing demand for certified copies of birth certificates and for delayed registrations of birth have been responsible for most of the overload of work placed on a staff, inadequate in size for normal operation.

For the last nine months out of the year 1946, the birth query program, for obtaining corrections on all birth certificates filed, was in operation. While a detailed study of the results of this program thus far has not yet been made, the gross advantages of the system have been very evident. This new birth query program represents an effective and complete uniform procedure for obtaining corrections on both legal and statistical items on all birth certificates presented to the Central Bureau of Vital Statistics for filing.

Efforts have been made this year to streamline procedure in the central office as well as in the field in an attempt to eliminate details of practice, probably essential thirty years ago but currently too cumbersome or even useless.

A plan for statewide revision of our local registration system, designed for more efficient registration of births and deaths and a closer relationship between that function and the county health program, was launched and the end of the year saw the plan installed in five Florida counties. It is hoped that early in 1947, the plan will be under way in all counties in which there is a fulltime health unit. In each county under the new arrangement, all birth and death certificates will clear through the county health officer, functioning as county local registrar. Under this revised system of local registration, when it gets fully under way, there will be many distinct advantages for the county health units, the funeral directors, the Central Bureau of Vital Statistics, and for the people of the State of Florida.

Of the 178,528 major basic records received for filing this year in the Bureau, there were: 61,809 for births; 25,548 for deaths; 66,629 for marriages; and 24,542 for divorces. According to our preliminary compilations from current records only, the following numbers of vital events were reported for Florida in 1946: Births 53,517; deaths 24,135; marriages 29,956; and divorces 26,118. These figures indicate increases over the 1945 data of approximately 5% for births; 2% for deaths; and 22% for divorces; while marriages decreased approximately 23%.

Other activities of the Bureau for this year are presented in the following table:

ACTIVITIES	NUMBERS
Birth and Death transcripts written for National Office	82,371
Queries, supplementals, affidavits, notices and other releases for correction of records	61,855
Additions to original records	9,108
Photostatic copies of records prepared	107,161
Requests for certified copies of records	62,779
Delayed registrations filed	4,229
Adoption certificates filed	587

The hopes and aspirations of the Florida Bureau of Vital Statistics staff are embodied in an ambitions plan to make the Florida State Board of Health a leader in the field of vital records and public health statistics. The Bureau has already laid much of the groundwork during the year towards a realization of that plan. The scope of the future Bureau of Vital Statistics of the Florida State Board of Health will not be limited primarily to the recording of births, deaths, marriages, and divorces, with a moderate degree of statistical reporting. It will, in addition to these functions, be primarily a service bureau for all other bureaus of the State Board of Health and the county health units. It will serve as an office for complete statistical services as a basis for administrative planning and evaluation for the State Health Officer, the several bureaus, and the county health units. It will provide mechanical tabulating, analytical, and statistical consulting services to all subdivisions of the State Health Department.

In addition, it will offer, on an expanded scale, the photostatic services which are performed currently by this Bureau and it is hoped that microfilm and acetate laminating services will be included also.

Further planning under serious consideration currently for the immediate future of this Bureau are. The introduction of the 35 mm microfilm procedure to replace the hand-transcribing of all Florida birth and death certificates for reporting to the National Office of Vital Statistics; the installation of a complete Central Tabulating Unit; and the adoption of the ''birth card'' method of issuance of a certified copy of an original birth record. The birth card will be one of billfold size and encased in transparent acetate film like a ''sandwich''. The birth card will serve all of the purposes currently served by an official State certified photostatic copy of a birth record.

BUREAU OF FINANCE AND ACCOUNTS

FRED B. RAGLAND, Director

The financial transactions of the State Board of Health for the fiscal year ended June 30, 1946, as reflected by the records of the Bureau of Finance and Accounts are presented in the condensed tables that follow.

The fund balances were all reconciled with the State Comptroller.

During this fiscal period, the Board received, in addition to regular state appropriations, federal grants in aid, and local contributions, certain grants from private foundations. These private grants included funds from the Rockefeller Foundation to carry on the Malaria Research Project in Tallahassee, a project financed by the Rockefeller Foundation for a number of years. Other private grants are listed below:

Milbank Memorial Fund, New York for support of Nutrition Investigations and Services;	$ 10,000
Research Corporation, Williams-Waterman Fund, New York for support of Nutrition Investigations and Services;	5,000
The Commonwealth Fund, New York committed toward support of a Field Training-Center at Gainesville. This grant was committed over a five year period on a graduated scale, and during the last half of the fiscal year $15,450 was received.	106,600

TABLE XXXVII—RECEIPTS AND DISBURSEMENTS FOR FISCAL YEAR JULY 1, 1945 TO JUNE 30, 1946

	Beginning Balance July 1, 1945	Receipts	Total	Disbursements	Balance June 30, 1946
I STATE					
General Revenue*		802,836.16	802,836.16	747,842.87	54,993.29
Miscellaneous Revenue	11,210.69		11,210.69		11,210.69
State Health Officer's Revolving Fund	1,000.00		1,000.00		1,000.00
TOTAL	12,210.69	802,836.16	815,046.85	747,842.87	67,203.98
Less County Health Unit Appropriation		246,000.00	246,000.00	237,848.80	8,151.20
BALANCE	12,210.69	556,836.16	569,046.85	509,994.07	59,052.78
Fees Authorized by Law:					
Centralization of Marriage and Divorce Records	8,144.34	25,784.00	33,928.34	25,395.64	8,532.70
Certified Copies of Birth and Death Certificates	7,755.14	24,162.23	31,917.37	19,630.35	12,287.02
Registration of Doctors & Midwives	1,135.24	3,645.45	4,780.69	3,311.32	1,469.37
Drug Store Inspection	4,433.77	8,170.00	12,603.77	6,405.39	6,198.38
Total Fees Authorized by Law	21,468.49	61,761.68	83,230.17	54,742.70	28,487.47
TOTAL STATE	33,679.18	618,597.84	652,277.02	564,736.77	87,540.25
II FEDERAL					
U. S. Public Health Service					
General Health	3,907.87	206,150.60	210,058.47	194,376.96	15,681.51
Veneral Disease	—76.32	316,318.61	316,242.29	304,683.31	11,558.98
Tuberculosis Control	31,884.36	145,323.50	177,207.86	116,866.79	60,341.07
Rapid Treatment Centers		292,842.00	292,842.00	292,641.94	200.06
Children's Bureau					
Maternal & Child Health	2,611.07	124,269.85	126,880.92	109,868.90	17,012.02
Emergency Maternal and Infant Care For Servicemen's Families	285,227.92	617,545.20	902,773.12	556,207.06	346,566.06
Federal Works Agency					
Rapid Treatment Centers	—4,000.87	4,000.87			
Quarantine Hospitals	46.39		46.39	46.39	
TOTAL FEDERAL	319,600.42	1,706,450.63	2,026,051.05	1,574,691.35	451,359.70
III OTHER					
Rockefeller Foundation					
Malaria Control-Escambia County	392.23		392.23	392.23	
Cooperative Malaria Projects	3,337.15		3,337.15	2,367.42	969.73
Division of Malaria Control	11,048.51	9,610.00	20,658.51	14,495.71	6,162.80
Commonwealth Fund		15,450.00	15,450.00	13,314.95	2,135.05
Nutrition Services Fund		15,000.00	15,000.00	416.12	14,583.88
TOTAL OTHER	14,777.89	40,060.00	54,837.89	30,986.43	23,851.46
IV Local Health Units and Veneral Disease Programs					
State Funds	55,956.65	237,848.80	293,805.45	201,245.82	92,559.63
Local Funds	101,699.71	751,888.71	853,588.42	743,979.66	109,608.76
Total Local Health Units and Veneral Disease Programs	157,656.36	989,737.51	1,147,393.87	945,225.48	202,168.39
TOTAL ALL FUNDS	525,713.85	3,354,845.98	3,880,559.83	3,115,640.03	764,919.80

*Reference Table 2 for Funds included

TABLE XXXVIII—SUMMARY OF DISBURSEMENTS
Detail of Fund Distribution

	State	State VD	Fees	Local	U. S. Public Health Service				Childrens' Bureau		Other Agencies	TOTAL
					RTC	GH	VD	TB	MCH	EMIC		
State Level												
Salaries	172,000.00	28,587.03	44,544.27		154,799.88	103,453.82	57,481.49	28,850.62	37,827.91	17,488.15	23,492.51	668,525.68
Necessary and Regular Expenses	199,421.12	56,452.85	10,198.43		137,842.06	28,868.83	106,657.10	46,755.42	16,953.44	538,718.91	7,540.31	1,149,408.47
TOTAL STATE LEVEL	371,421.12	85,039.88	54,742.70		292,641.94	132,322.65	164,138.59	75,606.04	54,781.35	556,207.06	31,032.82	1,817,934.15
Local Health Work (Including county Health Units, Local Venereal Disease Programs, and District Health Units)	254,778.89			743,979.66		62,054.31	140,544.72	41,260.75	55,087.55			1,297,705.88
Total Disbursements	626,200.01	85,039.88	54,742.70	743,979.66	292,641.94	194,376.96	304,683.31	116,866.79	109,868.90	556,207.06	31,032.82	3,115,640.03

TABLE XXXIX—SUMMARY OF SALARIES, BY DEPARTMENT AND FUNDS

Detail of Fund Distribution

Department	State	State VD	Fees	U. S. Public Health Service				Childrens' Bureau		Other Agencies	TOTAL
				RTC	GH	VD	TB	MCH	EMIC		
Administration	26,724.73				10,691.77	4,436.98	1,560.00	2,005.74		416.12	45,835.34
Laboratories	45,168.65	23,735.74			41,114.27	32,323.72	5,026.93				147,369.31
Vital Statistics	28,378.71		36,894.44		4,825.00		1,740.00	2,320.00			74,158.15
Sanitary Engineering	15,766.55				22,056.65						37,823.20
Finance and Accounts	10,253.78				5,299.90	6,240.31	2,474.00	4,234.52	1,877.92		30,380.43
Health Education	3,652.35				4,100.21	360.97	3,528.38	3,210.00			14,851.91
Narcotics	13,420.00		7,649.83		3,480.00						24,549.83
Veneral Disease Control		1,660.00				10,874.88					12,534.88
Epidemiology	4,200.00				1,521.32	1,397.32	892.86	1,205.96			9,217.46
Local Health Service	5,850.00	1,820.00			4,240.00	795.50		2,340.00			15,045.50
Tuberculosis Control	4,722.56						9,613.45				14,336.01
Dental Health	2,000.00				2,649.70			6,070.00			10,719.70
Public Health Nursing	3,960.00	1,371.29			1,975.00	766.45	660.00	4,240.00	1,880.00		14,852.74
Maternal and Child Health								11,110.57	13,730.23		24,840.80
Malaria Control	6,450.00										6,450.00
Merit System	1,452.67				1,500.00	285.36					3,238.03
Rapid Treatment Center				154,799.88							154,799.88
Division of Malaria Research										12,812.09	12,812.09
Training							915.00	1,091.12			2,006.12
Field Training Center Gainesville—Salaries							2,440.00			4,486.25	6,926.25
Stipends										5,778.05	5,778.05
Total Salaries	172,000.00	28,587.03	44,544.27	154,799.88	103,453.82	57,481.49	28,850.62	37,827.91	17,488.15	23,492.51	668,525.68

TABLE XL—SUMMARY OF NECESSARY AND REGULAR EXPENSES BY DEPARTMENT AND FUNDS

Detail of Fund Distribution

Departments	State	State VD	Fees	RTC	U. S. Public Health Service			Childrens' Bureau		Other Agencies	TOTAL
					GH	VD	TB	MCH	EMIC		
Administration	4,907.86				4,509.24						9,417.10
Laboratories	1,885.17	200.00									2,085.17
Vital Statistics	21,210.45		907.98								22,118.43
Sanitary Engineering	11,429.10										11,429.10
Finance and Accounts	133.37										133.37
Health Education	3,984.47						644.56	497.08			5,126.11
Narcotics	5,750.33		284.42								6,034.75
Venereal Disease Control	44.20	4,031.75				16,178.65					20,254.60
V. D. R. T. C. Program		45,150.00				20,190.69					65,340.69
Epidemiology	1,336.94				2,855.00						4,191.94
Local Health Service	5,598.69										5,598.69
Tuberculosis Control	3,566.37						5,050.70				8,617.07
Dental Health	3,740.88										3,740.88
Public Health Nursing	4,583.24						2,803.71	1,697.39			9,084.34
Maternal & Child Health								3,636.05			3,636.05
Malaria Control	313.73				1,065.27					2,367.42	3,746.42
Merit System	2,061.97				30.00						2,091.97
Rapid Treatment Centers				137,842.06							137,842.06
Division of Malaria Research										1,683.62	1,683.62
Emergency Maternal and Infant Care for Eligible Servicemen's Families									537,541.53		537,541.53
Training							400.82	1,266.63			1,667.45
Field Training Center—Gainesville										3,050.65	3,050.65
Purchase & Distribution of Insulin	11,292.77										11,292.77
Replacement of worn-out Autos	7,328.10										7,328.10
Construction of Temporary Buildings	7,152.78										7,152.78
Other Expense	103,100.70	7,071.10	9,006.03		18,010.32	70,287.76	24,958.34	9,856.29	1,177.38		243,467.92
Unliquidated Obligations—Prior Fiscal Year					2,399.00		12,897.29				15,296.29
TRANSFERS FROM DISCONTINUED PROJECTS										438.62	438.62
	199,421.12	56,452.85	10,198.43	137,842.06	28,868.83	106,657.10	46,755.42	16.953.44	538,718.91	7,540.31	1,149,408.47

TABLE XLI—SUMMARY OF DISBURSEMENTS LOCAL HEALTH UNITS, DISTRICT HEALTH UNITS AND VENEREAL DISEASE PROGRAMS

Detail of Fund Distribution

Local Health Units	State	Local	U. S. Public Health Service			Childrens' Bureau MCH	TOTAL
			GH	VD	TB		
Alachua	8,041.31	24,921.38	1,920.65	3,572.53	1,927.96	2,811.00	43,194.83
Baker	2,530.58	5,426.87	1,920.00	1,320.00			11,197.45
Bay	6,406.84	15,737.73		3,314.28		966.57	26,425.42
Bradford	2,353.00	3,313.34	2,543.08	1,430.00			9,639.42
Broward	7,747.60	16,348.10	2,400.00	1,352.91		2,494.00	30,342.61
Clay	3,704.48	4,402.29	1,350.00				9,456.77
Columbia		679.18					679.18
Dade	18,779.91	186,185.92	1,560.00	9,423.50	8,753.79	7,473.16	232,176.28
Duval	10,301.76	17,844.73	2,797.69		2,121.72	3,675.00	36,740.90
Escambia	10,136.82	28,207.50	2,040.00	108.00	1,920.00	4,197.74	46,610.06
Franklin	1,368.11	4,837.55		1,752.27			7,957.93
Gadsden	6,255.81	14,024.97	2,250.00	2,099.50		546.00	25,176.28
Glades	743.27	955.27	1,050.00				2,748.54
Gulf	1,887.19	3,534.40	1,920.00	126.00		1,188.25	8,655.84
Highlands	4,799.92	7,226.47	1,170.00	197.58			13,393.97
Hillsborough	14,935.70	150,495.39	2,998.47	10,763.82	8,879.64	7,606.36	195,679.38
Holmes	585.11	2,004.86	2,040.00	1,711.00		1,590.00	7,930.97
Jackson	5,331.93	6,422.64	1,880.00	1,830.00		2,676.00	18,140.57
Jefferson	5,277.45	4,373.84	620.00	1,920.33			12,191.62
Lake	6,381.56	11,102.15	2,400.00	2,829.17		2,344.00	25,056.88
Leon	7,331.76	25,584.84	1,850.00	4,241.52	2,476.64	1,576.04	43,060.80
Levy	934.66	6,873.99	3,037.76	239.25		382.00	11,467.66
Madison	4,188.19	4,762.98	2,038.19	1,942.00		937.74	13,869.10
Monroe	4,759.63	11,332.65	1,705.00	556.45		1,727.72	20,081.45
Nassau	4,586.85	7,577.58		1,920.00	2,167.64	1,080.00	17,332.07
Okaloosa	1,573.23	3,374.70	1,880.00	1,240.00			8,067.93
Orange	5,217.00	23,462.41	1,040.00	2,575.00	1,891.85	3,430.37	37,616.63
Pinellas	10,306.23	29,479.42	2,010.00	2,520.00	5,698.06	957.25	50,970.96
Polk	6,749.06	17,931.52	1,610.32	3,034.06	900.55	1,055.58	31,281.09
Santa Rosa	3,734.28	3,763.84	1,129.08		1,170.00		9,797.20
Seminole	5,200.16	8,964.47	2,745.96		2,227.90	2,533.25	21,671.74
Sumter	2,575.91	2,964.23	1,625.81	1,450.67			8,616.62
Suwannee		150.00					150.00
Taylor	3,469.14	3,778.44	2,147.15	1,320.00			10,714.73
Volusia	10,193.47	41,546.68	2,040.00	4,419.49	1,125.00	3,294.88	62,619.52
Wakulla	2,379.62	3,112.50	854.83	234.50		241.50	6,822.95
Walton	551.55	3,287.14	1,680.32	506.00			6,025.01
Washington	4,016.58	5,778.55	1,800.00	480.00			12,075.13

HEALTH UNITS AND VENEREAL DISEASE PROGRAMS—(Continued)

Local Health Units	State	Local	U. S. Public Health Service			Childrens' Bureau MCH	TOTAL
			GH	VD	TB		
Special Fee Services to Local Health Units						303.14	303.14
Transfers from Inactive Local Health Unit Funds	5,910.15	6,340.71					12,250.86
Total Local Health Units	201,245.82	718,111.23	62,054.31	70,429.83	41,260.75	55,087.55	1,148,189.49
Venereal Disease Programs							
Jacksonville—Duval County		13,017.60		20,819.62			33,837.22
Brevard County		1,518.00					1,518.00
Citrus County		933.50		342.50			1,276.00
Duval County		8,325.83					8,325.83
Flagler County		1,120.00		110.66			1,230.66
Indian River County		953.50					953.50
Palm Beach County				12,023.14			12,023.14
Escambia County				16,077.47			16,077.47
State—Wide				20,741.50			20,741.50
Total Venereal Disease Programs		25,868.43		70,114.89			95,983.32
District Health Units	53,533.07						53,533.07
Total Local Health Units, District Health Units and Venereal Disease Programs	254,778.89	743,979.66	62,054.31	140,544.72	41,260.75	55,087.55	1,297,705.88

PERSONNEL OFFICE

PAUL T. BAKER

During the year ending December 31, 1946, the Personnel Supervisor completed the installation of a complete system of personnel records and maintained them up to date. Leave records were developed for all employees and periodic efficiency ratings were obtained on employees. Records of in-service training of employees were maintained, and the application of regulations governing such training was insured. All employees at State Headquarters were encouraged by the Personnel Supervisor to discuss with him their employment problems. At the usual times for consideration of the State Board of salary increases, full information concerning the employees was made available to the Board, in order that all employees might be treated equitably. Careful check was made to insure that all appointments were made in accordance with rules adopted by the State Board of Health. In September the office of Personnel Supervisor was placed under the direct supervision of the Director of the Bureau of Finance and Accounts and the preparation of pay rolls made a responsibility of the Personnel Section.

PURCHASING AND PROPERTY

G. WILSON BALTZELL

The Central Purchasing Division of the State Board of Health began to operate March 1, 1946. Before that time purchasing was done independently by the various bureaus and divisions. There were no iron clad rules as to how purchases were to be made. When something was wanted that could be secured locally, a phone call was the answer and if the merchandise had to be gotten out of town, a telegram was generally sent, confirmed subsequently by a purchase order. Each bureau made up its own purchase orders, and sent them to the State Health Officer for his signature, but due to his frequent absence from the city and attention to other duties, his secretary would generally complete with signature stamp.

When the health department was a small affair, and housed in its one and only building on Julia Street, and the State Health Officer could supervise and overlook all activities, this system was not too clumsy, but when the Social Security Act was passed in 1935, and health programs began to expand, it became inadequate. The Board for a long time realized something must be done, and as soon as the war was over established a purchasing department, and appointed G. Wilson Baltzell, Purchasing Agent.

This department combines purchasing and supervision of property: hence the designation Purchasing and Property. The procedure for Purchasing is this: when a bureau needs something a requisition is made to the Purchasing Agent on forms which are numbered and identified with respective bureaus and departments by letters. For instance, Laboratory requisitions are numbered 1-L, 2-L etc., and Vital

TABLE XLII—DISTRIBUTION OF PERSONNEL AT STATE HEADQUARTERS, BRANCH LABORATORIES, RAPID TREATMENT CENTER AND V. D. CLINICS
DECEMBER 31, 1946

	Administration	Dental Health	Finance and Accounts	Health Information	Laboratory—Central	Local Health Service	Malaria Control	Malaria Research	Maternal & Child Health	Narcotics	Nutrition	Preventable Diseases	State Wide V. D. Control	Public Health Nursing	Sanitary Engineering	Tuberculosis Control	Vital Statistics	Miami Laboratory	Pensacola Laboratory	Tallahassee Laboratory	Tampa Laboratory	Rapid Treatment Center	City County V. D. Clinic	Totals
Physicians	1				1	1					1	2	1			2						3		12
Dentists		1																						1
Nurses									1		1		2	6								16	2	28
Sanitary Personnel						2									10									12
Laboratory Technical					25		1	1			2	1						9	2	1	9	1		52
Laboratory Non-Technical					3														1	1				5
Pharmaceutical Group										5														5
Clerical, Administrative, Fiscal	11	1	18	2	10	4		1	5	2	2	12	3	2	5	8	41	4	1	1	3	11	3	150
Laborers, Dieners, Janitors	9			1	23													3	1	2	5	43	1	88
Hospital Ship Crew																						15		15
Miscellaneous	3			4			1		2	3	2	5	5		2	8	5					26	2	68
Part Time	1		1	2					1		1		3				1		1				5	16
Federal Employees							81					4		1	4	4						6		100
Total	25	2	19	9	62	7	83	2	9	10	9	24	14	9	21	22	47	16	6	5	17	121	13	552

TABLE XLIII—DISTRIBUTION OF PERSONNEL IN DISTRICT AND COUNTY HEALTH DEPARTMENTS AND TRAINING CENTER—DECEMBER 31, 1946

	Alachua	Baker	Bay	Bradford	Broward	Charlotte	Clay	Columbia	Dade	DeSoto	Dixie	Duval	Escambia	Franklin	Gadsden	Glades	Gulf	Hamilton	Highlands	Hillsborough	Holmes	Jackson	Jefferson	Lafayette	Lake
		(a)		(b)				(i)					(c)	(g)					(d)			(e)			
Physicians	2	1	1	1	1			1	4			1	1	1					1	4		1	1		1
Dentists									1			1													
Nurses	9	1	5	2	6		1	2	40	1	1	7	8	1	6	1	1	1	2	25	2	3	1	1	5
Sanitary Personnel	3	1	2	1	3		1	1	27		1	3	8	1	3		1	1		15	1	1	1		4
Laboratory Technical																									
Laboratory Non-Technical																									
Clerical, Administrative, Fiscal	3	1	2	1	2	1	1	1	20	1	1	3	4	1	2		1	1	1	22	1	1	1		3
Laborers, Dieners, Janitors			1										3							6					
Miscellaneous		1	2	1					5				1							8	1		1		
Part Time	2			1				1	8		1	2	4	2	1	1				18		1	1		1
Federal Employees																									
Totals	19	5	13	7	12	1	3	6	105	2	4	17	29	6	12	2	3	3	4	98	5	7	6	1	14

NOTES: (a) Serves Baker and Nassau
(b) Serves Bradford, Clay and Union
(c) Serves Escambia and Santa Rosa
(d) Serves Highlands and Glades
(e) Serves Jackson and Washington
(g) Serves Franklin, Gulf and Wakulla
(i) Serves Columbia and Hamilton

TABLE XLIII—DISTRIBUTION OF PERSONNEL IN DISTRICT AND COUNTY HEALTH DEPARTMENTS AND TRAINING CENTER—DECEMBER 31, 1946—(Continued)

	Leon	Levy	Madison	Monroe	Nassau	Okaloosa	Orange	Pinellas	Polk	Santa Rosa	Sarasota	Seminole	Sumter	Suwannee	Taylor	Union	Volusia	Wakulla	Walton	Washington	Training Center	Central District	Southeastern District	Southwestern District	Totals
						(f)					(j)			(h)											
Physicians	1	1		1		1	1	1	1		1	1	1	1			1						1		35
Dentists								1																	3
Nurses	3	1	2	3	2	2	13	11	4	2	3	3	1	1	1	1	8	1	2	2	1		1		200
Sanitary Personnel	1	2	1	1	1	1	4	3	6		1	1	1	1	1		8		1	1	2	2	2	2	122
Laboratory Technical																	1								1
Laboratory Non-Technical																									0
Clerical, Administrative, Fiscal		1	1	3	2	1	2	4	5	1	1	2	1	1	1	1	3	1	1	1	1		1		110
Laborers, Dieners, Janitors				1				1									1								13
Miscellaneous		1	1	1	1		1		2	2		1					4				1				35
Part Time	2		1		1	1	2	1					1		1			1	1	1	2		1		60
Federal Employees																									0
Totals	7	6	6	10	7	6	23	22	18	5	6	8	5	4	4	2	26	3	5	5	7	2	6	2	579

NOTE: (f) Serves Okaloosa, Walton and Holmes
(h) Serves Suwannee, Dixie and Lafayette
(j) Serves Sarasota, DeSoto and Charlotte

Statistics 100-VS etc. They are made up in triplicate, the original and one copy channeled to Purchasing, and the other copy retained by the bureau. When the Purchasing Department receives the requisitions, they first determine if any of the articles requested can be furnished from stock on hand, such as carbon paper, typewriter ribbons, etc., and then invite prices on what has to be secured outside. There are numerous items like small laboratory supplies costing less than twenty-five dollars that are priced over the telephone probably from two or sometimes only one concern, but when the amounts are twenty-five dollars or over bids are sought. One of the regular printed forms of this Division is headed "Invitation to Bid". All items, on which quotations are required, are listed on these forms and sent to three or more vendors or manufacturers, the number being dependent upon the valuation of the merchandise needed and the necessity of obtaining a clear picture of the present price structure. When all bids are in and tabulated, the lowest bidder is awarded the business. The securing of bids has resulted in a tremendous saving because when vendors know low bidders will get the business, they will make rock bottom prices, being well aware that competitors are doing the same. When it is an established fact that bids are not asked, there is no incentive for vendors to sell anything cheaper than they have to.

After prices have been established, purchase orders are made up in sextuplicate. The duplicate, triplicate and quadruplicate copies are sent up to the Bureau of Finance and Accounts, and if they are approved and funds are available, it is so indicated on the quadruplicate copy and returned to Purchasing. The original order is then signed by the Purchasing Agent and sent to vendor. In some cases a copy accompanies the original, designated "Acknowledgment Order", which the vendor is required to sign guaranteeing his acceptance of the order at terms printed on reverse side of blank. The quintuplicate (pink copy) goes in the "Vendor" file, which has been found to be extremely helpful for ready reference. The sextuplicate is sent to the bureau concerned. When all items on the requisitions have been supplied, the carbon copies which have been annotated are returned to the bureaus for the files.

From March 1 to December 31, 1,044 requisitions were received and processed. Exclusive of Purchase Orders covering repairs to cars, there have been issued 2,234 purchase orders covering 5,341 commodities with a total valuation of $345,921.54, including $25,400 for construction of Office Annex and Warehouse. The average number of commodities ordered was 2.39 per purchase order. The average valuation per commodity ordered was $64.77 while the average valuation of each purchase order was $154.84. 184 purchase orders were issued covering 648 repairs to cars with a total valuation of $5,199.49. The average repairs per purchase order was 3.5 and average valuation of repairs to cars was $8.02 per item.

A comparison of high and low bids shows a differential of $39,755.47, which is a saving of $17.80 per purchase order or 12.4% on total expenditures and a saving of 36.1% on bid items purchased. This is exclusive of bids taken on new buildings constructed during the year.

There is one exception to the foregoing purchasing procedure, and that is in the case of Biologicals, Drugs and Arsenicals. Invitations were sent out the latter part of May to reliable drug manufacturers and distributors, for everything that is dispensed in that line so that bids could all be in time to award contracts before July 1st. Of course, after this is done, purchase orders are made at once to the lowest bidders, and sent to Finance and Accounts for approval.

This purchasing system not only saves money by securing bids but expedites processing of invoices and makes possible taking of more frequent discounts, and enables the Bureau of Finance and Accounts to know just what is obligated against budget items at all times. It also saves money and time in this way: it relieves personnel in the different bureaus from having to secure commodities so that they can apply their time more effectively to their own activities.

In normal times this routine operates efficiently, but during 1946 (and from all indications 1947 will not be better) many obstacles were encountered. Not only did prices advance tremendously but commodities became scarcer and scarcer, and some orders that had been placed for several months were finally cancelled as vendors admitted their inability to supply. When these things occurred, it was necessary to refer back to the bids and see whose prices were next in line and make new contacts. Sometimes originally quoted prices would be sustained, but if too long a time had elapsed, more than likely prices would be advanced. There were a good many times when bids would have to be taken again. Naturally, all this was very demoralizing and worked hardships on everybody and did not tend to create happy relationships.

Some unfortunate experiences occurred with biologicals and drugs, especially with rabies vaccine. During the summer months it became so scarce and demands from all over the State became so numerous and imperative, that in order to get any vaccine at all it was necessary to pay any price asked. The situation finally improved, but it was hectic while it lasted.

Under this Division is a receiving Clerk, who accepts and signs for all deliveries, and turns in reception reports with description of all articles that come in and purchase order numbers. Invoices are usually received in advance of deliveries of merchandise, but are not processed for payment until they are checked with reception reports or with authentic report of "services rendered" or "work performed". When invoices are received, they are naturally first checked with purchase orders to verify unit prices, quantities and correctness of extensions, and then when reception reports denote that merchandise has been received in good order, invoices are approved and sent to Finance and Accounts for payment.

A word as to property. Soon after this department started to operate, numbering of each piece of equipment was undertaken, wooden furniture and equipment with aluminum tags, and on metal pieces, numbers were marked with a vibro-tool. This numbering has not been completed yet as purchasing duties became so engrossing that present personnel did not have time to give to any other activities; but it is one of the main objectives of the department. Card files are kept for all permanent equipment both by classification and location. Cards are also kept on all commodities ordered, which provides ready reference, especially for comparing prices.

BUILDINGS AND GROUNDS

After the War Colonel Frank M. Whiddon returned to the State Board of Health and resumed his position as Superintendent of Buildings and Grounds. During the past twelve months the State Board of Health's offices spread out over a vast territory. Besides the administrative buildings and laboratories on Pearl and Julia Streets, there was constructed during the year another one story office building and warehouse on the premises. The Bureau of Preventable Disease is now located in the Central Truck Lines building across the street, and the Bureaus of Tuberculosis Control and Maternal and Child Health are on the second floor of No. 501 West Adams Street. The Central Registry of V.D. Control is at present at 33 West Ashley but will be moved to headquarters as soon as lease has been consumated for two buildings at St. Johns River Ship Yard site to which will be moved the Bureaus of Sanitary Engineering and Malaria Control.

Under Buildings and Grounds there is a maintenance crew who do painting and carpenter work and make repairs of all kinds, viz: to plumbing fixtures, heating plants, electric motors, fans, water coolers, and refrigerators. They also do cabinet work and repair broken furniture. The workshop is in one section of the warehouse, and speaking of the warehouse, this requires considerable attention, as the storage turnover is great and constant switching around is necessary.

Another activity is the mailing division. All mail is weighed and proper postage stamped with Pitney-Bowes Postage Machine. Since its installation the volume of mail has grown so much that the capacity of the machine is overtaxed, and a larger and more adequate machine had to be ordered. Incoming mail is sorted and distributed to each bureau and division: all specimens go direct to the laboratory.

Purchasing and Property is responsible for making contracts and leases and placing insurance. Fire insurance on buildings and contents is carried in the State Insurance Fund. Boiler insurance is placed by the Insurance Commissioner in Tallahassee, but the State Board of Health is charged with pro rata premium. All other risks are carried in commercial companies, such as Automobile Public Liability and Fire and Theft coverage, Floater policies on X-ray and dental equipment and Workmen's Compensation, Fidelity Bonds, etc. During the year 1946 insurance claims were not unduly excessive, although one new sedan was stolen, and paid for by the insurance company. The previous year though, was one of the worst in history as far as public liability on automobiles was concerned, the company having had to pay to the limit of its liability.

DUPLICATING DEPARTMENT

November 1919 the Duplicating Department of the State Health Department began operating with one small multigraph and a paper cutter. Today—1946 it has the following equipment, one large multigraph, one multilith, one mimeograph, large paper cutter, perforator. punch and stitching machines.

Personnel consists of the chief, Ernest F. H. Ganten and one assistant who prepare (set type, type forms for photographing and etc.) for jobs as well as the press work. In addition to this work the department has equipment for making its own multilith plates.

This department prints most of the small single sheet forms,—Letter heads, envelopes, data and report forms, pamphlets, circular letters, notices, and other numerous forms. The quantity of duplicating materials in the past five years has increased 10 fold. The addition of new Bureaus/Divisions, quantity and quality of print jobs calls for more equipment, and help, which is urgently needed as well as room for equipment and a stock storage space.

The year 1946 tabulation of prints from the various machines was:

Type of Machine	Number of Pieces	Number of Forms
Multilith	3,594,408	288
Multigraph	2,326,644	300
Mimeograph	1,555,692	2,664

A recent addition to the Duplicating Department is the addressograph. Its function is addressing of health notes (10,000) each month. as well as the making of the monthly payrolls. It has name plates of doctors, local registrars, schools, state officials and city departments on file. The number of name plates is estimated at 25,000. An especially trained person operates this machine.